FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) OFFICE OF AIR MANAGEMENT

Remote Controls, Inc. 512 South Merrifield Avenue Mishawaka, Indiana 46544

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F 141-7924-00167	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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Emergency/Deviation Occurrence Report Form
FESOP Quarterly Report Forms (3)
Quarterly Compliance Monitoring Report Form
Chromium Electroplating and Anodizing NESHAP Ongoing Compliance Status Report Form

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary chromium anodizing and surface coating source.

Authorized individual: Lyndon Tschetter

Source Address: 512 South Merrifield Avenue, Mishawaka, Indiana 46544 Mailing Address: 512 South Merrifield Avenue, Mishawaka, Indiana 46544

Phone Number: (219) 259-5491 SIC Code: 3741/3479 County Location: St. Joseph

Source Location Status: Attainment for all criteria pollutants

Source Status: Federally Enforceable State Operating Permit (FESOP)

Minor Source, under PSD Rules;

Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) chromium anodizing tank, known as EU-Bell Chrome 1, installed in 1965, exhausting to Stack BAVSX, capacity: 1.1628 pounds of aluminum parts per hour.
- (b) One (1) chromium anodizing tank, known as EU-Bell Chrome 2, installed in 1998, used as an alternate EU-Bell Chrome 1 for parts that do not fit in EU-Bell Chrome 1 and using the anodizing bath from EU-Bell Chrome 1, exhausting to Stack BAVSX, capacity: 1.1628 pounds of aluminum parts per hour.
- (c) One (1) vapor degreaser, known as EU-Vapor Deg, installed in 1965, exhausting to Stack BOX, capacity: 100 pounds of aluminum parts per hour.
- (d) Surface coating activities consisting of the following:
 - (1) One (1) spray paint gun, known as EU-SG1, installed in 1975, equipped with air atomization spray guns and dry filters for overspray control and exhausted to Stack SSBX, capacity: 1.874 aluminum parts per hour.
 - (2) One (1) spray paint gun, known as EU-SG2, installed in 1975, equipped with air atomization spray guns and dry filters for overspray control and exhausted to Stack LSBX, capacity: 28.7292 pounds of aluminum parts per hour.
 - One (1) small electric paint curing oven bank, consisting of three (3) miniature ovens, known as EU-SMOVEN, installed in 1965, exhausted to Stack S, capacity: 6.652 pounds of aluminum parts per hour.

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(4) One (1) large electric paint curing oven, known as EU-LGOVEN, installed in 1965, exhausted to Stack T, capacity: 23.863 aluminum parts per hour.

(e) One (1) vapor blast unit, known as EU-Vapor Blast, installed in 1965, equipped with a cyclonically assisted dry filter, exhausted to Stack LM, capacity: 1.25 aluminum parts per hour.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, including one (1) boiler with a heat input capacity of 3.2 million British thermal units per hour.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) for a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permit Conditions

- (a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.
- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAM, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.

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SECTION B

GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the effective date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3.

B.4 Enforceability [326 IAC 2-8-6]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management Permits Branch, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall furnish to IDEM, OAM, within a reasonable time, any information that IDEM, OAM, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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(c) Upon request, the Permittee shall also furnish to IDEM, OAM, copies of records required to be kept by this permit. The Permittee may include a claim of confidentiality in accordance with 326 IAC 17. If requested by IDEM, OAM, or the U.S. EPA, to furnish copies of requested records directly to U. S. EPA, then the Permittee must furnish record directly to the U. S. EPA. The Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAM, may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit, except those specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act and is grounds for:
 - (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; and
 - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, on the attached Certification Form, with each submittal.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The certification shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than April 15 of each year to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015 Remote Controls, Inc.

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(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, and on or before the date it is due.

- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
 - (5) Such other facts as specified in Sections D of this permit, IDEM, OAM, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for guick replacement.

If due to circumstances beyond its control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management Compliance Branch, Office of Air Management 100 North Senate Avenue, P. O. Box 6015 Indianapolis. Indiana 46206-6015

The PMP and the PMP extension notification do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

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(c) A copy of the PMPs shall be submitted to IDEM, OAM, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAM. IDEM, OAM, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Emergency Provisions [326 IAC 2-8-12] B.14

- An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action (a) brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:
 - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAM, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Management, Compliance

Section), or

Telephone No.: 317-233-5674 (ask for Compliance Section)

Facsimile No.: 317-233-5967

Failure to notify IDEM, OAM, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

For each emergency lasting one (1) hour or more, the Permittee submitted notice (5) either in writing or facsimile, of the emergency to:

Indiana Department of Environmental Management Compliance Branch, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

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- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions) for sources subject to this rule after the effective date of this rule. This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAM, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAM, by telephone or facsimile of an emergency lasting more than one (1) hour in compliance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Remote Controls, Inc. Mishawaka, Indiana Permit Reviewer: CAO/MES

> Indiana Department of Environmental Management Compliance Branch, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

within ten (10) calendar days from the date of the discovery of the deviation, except for the failure to perform the monitoring or record the information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
 - (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
 - (2) An emergency as defined in 326 IAC 2-7-1(12); or
 - (3) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

- (c) Written notification shall be submitted on the attached Emergency/Deviation Occurrence Reporting Form or its substantial equivalent. The notification does not need to be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Proper notice submittal under 326 IAC 2-7-16 satisfies the requirement of this subsection.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAM, determines any of the following:
 - (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAM, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

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(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAM, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAM, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAM, and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management Permits Branch, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, IN 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]
 - (1) A timely renewal application is one that is:
 - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
 - (2) If IDEM, OAM, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9] If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAM, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAM, any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

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Indiana Department of Environmental Management Permits Branch, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis. Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1) only if a certification is required by the terms of the applicable rule.

(c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15]

- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:
 - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
 - (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
 - (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
 - (4) The Permittee notifies the:

Indiana Department of Environmental Management Permits Branch, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J) 77 West Jackson Boulevard Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAM, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

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- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:
 - (1) A brief description of the change within the source;
 - (2) The date on which the change will occur;
 - (3) Any change in emissions; and
 - (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) Emission Trades [326 IAC 2-8-15(c)]
 The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
 The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAM or U.S. EPA is required.

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the applicable provisions of 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAM, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements. [326 IAC 2-8-5(a)(4)]

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B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management Permits Branch, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-11(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

- (a) The Permittee shall pay annual fees to IDEM, OAM, within thirty (30) calendar days of receipt of a billing. If the Permittee does not receive a bill from IDEM, OAM the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAM, Technical Support and Modeling Section), to determine the appropriate permit fee.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

- (a) Pursuant to 326 IAC 2-8:
 - (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period.
 - (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
 - (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.
- (b) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.
- (c) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3(a)(2)(A) and (B) are not federally enforceable.

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C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.7 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Permit Reviewer: CAO/MES

Indiana Department of Environmental Management Asbestos Section, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) Procedures for Asbestos Emission Control

The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Indiana Accredited Asbestos Inspector

The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

Testing Requirements [326 IAC 2-8-4(3)]

C.9 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Management 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAM of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAM, within forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAM, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

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Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

All monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule with full justification of the reasons for inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.12 Maintenance of Emission Monitoring Equipment [326 IAC 2-8-4(3)(A)(iii)

- (a) In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.13 Monitoring Methods [326 IAC 3]

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

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Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.14 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a); or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and
- (c) A verification to IDEM, OAM, that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.15 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the compliance monitoring plan are:
 - (1) This condition;
 - (2) The Compliance Determination Requirements in Section D of this permit;
 - (3) The Compliance Monitoring Requirements in Section D of this permit;
 - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
 - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:
 - (A) Reasonable response steps that may be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
 - (B) A time schedule for taking reasonable response steps including a schedule for devising additional response steps for situations that may not have been predicted.

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(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to take reasonable response steps shall constitute a violation of the permit.

- (c) Upon investigation of a compliance monitoring excursion, the Permittee is excused from taking further response steps for any of the following reasons:
 - (1) A false reading occurs due to the malfunction of the monitoring equipment. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied; or
 - (3) An automatic measurement was taken when the process was not operating; or
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (e) All monitoring required in Section D shall be performed at all times the equipment is operating. If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required monitoring.
- (f) If for reasons beyond its control, the Permittee fails to perform the monitoring and record keeping as required by Section D, then the reasons for this must be recorded.
 - (1) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent of the operating time in any quarter.
 - (2) Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.

C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the corrective actions are being implemented.

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(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline.

(c) IDEM, OAM reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.17 Emission Statement [326 IAC 2-6] [326 IAC 2-8-4(3)]

(a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6. This annual statement must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8) (Emission Statement Operating Year). The annual statement must be submitted to:

Indiana Department of Environmental Management Technical Support and Modeling Section, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

The emission statement does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.

C.18 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
 - (1) The date, place, and time of sampling or measurements;
 - (2) The dates analyses were performed;
 - (3) The company or entity performing the analyses;
 - (4) The analytic techniques or methods used;

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- (5) The results of such analyses; and
- (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
 - (1) Copies of all reports required by this permit;
 - (2) All original strip chart recordings for continuous monitoring instrumentation;
 - (3) All calibration and maintenance records;
 - (4) Records of preventive maintenance.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Quarterly Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Management 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The report(s) does(do) not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports. The Emergency/Deviation Occurrence Report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

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Stratospheric Ozone Protection

C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

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SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

- (a) One (1) chromium anodizing tank, known as EU-Bell Chrome 1, installed in 1965, exhausting to Stack BAVSX, capacity: 1.1628 pounds of aluminum parts per hour.
- (b) One (1) chromium anodizing tank, known as EU-Bell Chrome 2, installed in 1998, used as an alternate EU-Bell Chrome 1 for parts that do not fit in EU-Bell Chrome 1 and using the anodizing bath from EU-Bell Chrome 1, exhausting to Stack BAVSX, capacity: 1.1628 pounds of aluminum parts per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 General Provisions Relating to HAPs [326 IAC 20-1-1] [40 CFR Part 63, Subpart A]

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 63, Subpart N.

D.1.2 Chromium Electroplating and Anodizing NESHAP [326 IAC 20-8-1] [40 CFR Part 63, Subpart N]

The provisions of 40 CFR 63, Subpart N - National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks, which are incorporated by reference as 326 IAC 20-8-1, apply to tanks EU-Bell Chrome 1 and EU-Bell Chrome 2. A copy of this rule is attached.

D.1.3 Chromium Emissions Limitation [40 CFR 63.342(c)] [40 CFR 63.343(a)(1)&(2)]

- (a) The emission limitations in this condition apply only during tank operation, and also apply during periods of startup and shutdown as these are routine occurrences for tanks subject to 326 IAC 20-8-1. The emission limitations do not apply during periods of malfunction. The work practice standards that address operation and maintenance must be followed during malfunctions and periods of excess emissions.
- (b) During tank operation, the Permittee shall control chromium emissions discharged to the atmosphere from tanks EU-Bell Chrome 1 and EU-Bell Chrome 2 by:
 - (1) Not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed one-hundredth milligrams of total chromium per dry standard cubic meter of ventilation air (0.01 mg/dscm) [equivalent to four and fourtenths times ten raised to the power of negative six grains of total chromium per dry standard cubic foot of ventilation air (4.4x10⁻⁶ gr/dscf)]; or
 - (2) Not allowing the surface tension of the anodizing bath contained within the tanks to exceed forty-five dynes per centimeter (45 dynes/cm) [equivalent to three and one-tenth times ten raised to the power of negative three pound-force per foot (3.1x10⁻³ lb_t/ft)] at any time during operation of tanks EU-Bell Chrome 1 and EU-Bell Chrome 2 when a chemical fume suppressant containing a wetting agent is used.

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D.1.4 Work Practice Standards [40 CFR 63.342(f)]

The following work practice standards apply to tanks EU-Bell Chrome 1 and EU-Bell Chrome 2:

- (a) At all times, including periods of startup, shutdown, malfunction and excess emissions, the Permittee shall operate and maintain tanks EU-Bell Chrome 1 and EU-Bell Chrome 2, including the fume suppressant containing a wetting agent and monitoring equipment, in a manner consistent with good air pollution control practices, consistent with the Operation and Maintenance Plan (OMP) required by Condition D.1.6.
- (b) Malfunctions and excess emissions shall be corrected as soon as practicable after their occurrence in accordance with the OMP required by Condition D.1.6.
- (c) These operation and maintenance requirements are enforceable independent of emissions limitations or other requirements in this section.
- (d) Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to IDEM, OAM, which may include, but is not limited to, monitoring results; review of the OMP, procedures, and records; and inspection of the source.
- (e) Based on the results of a determination made under paragraph (d) of this condition, IDEM, OAM may require that the Permittee make changes to the OMP required by Condition D.1.6. Revisions may be required if IDEM, OAM finds that the plan:
 - (1) Does not address a malfunction or period of excess emissions that has occurred;
 - (2) Fails to provide for the operation of tanks EU-Bell Chrome 1 and EU-Bell Chrome 2, the fume suppressant containing a wetting agent and process monitoring equipment during a malfunction or period of excess emissions in a manner consistent with good air pollution control practices; or
 - (3) Does not provide adequate procedures for correcting malfunctioning process equipment, fume suppressant containing a wetting agent, monitoring equipment or other causes of excess emissions as quickly as practicable.

The work practice standards that address operation and maintenance must be followed during malfunctions and periods of excess emissions.

D.1.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan (PMP), in accordance with Section B-Preventive Maintenance Plan, of this permit, is required for tanks EU-Bell Chrome 1 and EU-Bell Chrome 2.

D.1.6 Operation and Maintenance Plan [40 CFR 63.342(f)(3)]

- (a) The Permittee shall prepare an Operation and Maintenance Plan (OMP) to be implemented no later than the startup date of tanks EU-Bell Chrome 1 and EU-Bell Chrome 2. The OMP shall specify the operation and maintenance criteria for tanks EU-Bell Chrome 1 and EU-Bell Chrome 2, the fume suppressant containing a wetting agent and monitoring equipment and shall include the following elements:
 - (1) Manufacturers recommendations for maintenance of the monitoring equipment used to measure surface tension;
 - (2) A standardized checklist to document the operation and maintenance criteria for tanks EU-Bell Chrome 1 and EU-Bell Chrome 2, the chemical fume suppressant containing a wetting agent and the monitoring equipment.

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(3) Procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions or periods of excess emissions as indicated by monitoring data do not occur.

- (4) A systematic procedure for identifying malfunctions and periods of excess emissions of tanks EU-Bell Chrome 1 and EU-Bell Chrome 2, the chemical fume suppressant containing a wetting agent and monitoring equipment; and for implementing corrective actions to address such malfunctions and periods of excess emissions.
- (b) The Permittee may use applicable standard operating procedures (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other existing plans such as the PMP required in Condition D.1.5, as the OMP, provided the alternative plans meet the above listed criteria in Condition D.1.6(a).
- (c) If the OMP fails to address or inadequately addresses an event that meets the characteristics of a malfunction or period of excess emissions at the time the plan is initially developed, the Permittee shall revise the OMP within forty-five (45) days after such an event occurs. The revised plan shall include procedures for operating and maintaining tanks EU-Bell Chrome 1 and EU-Bell Chrome 2, the chemical fume suppressant containing a wetting agent and the monitoring equipment, during similar malfunction or period of excess emissions events, and a program for corrective action for such events.
- (d) If actions taken by the Permittee during periods of malfunction or period of excess emissions are inconsistent with the procedures specified in the OMP, the Permittee shall record the actions taken for that event and shall report by phone such actions within two (2) working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within seven (7) working days after the end of the event, unless the Permittee makes alternative reporting arrangements, in advance, with IDEM, OAM.
- (e) The Permittee shall keep the written OMP on record after it is developed to be made available, upon request, by IDEM, OAM for the life of tanks EU-Bell Chrome 1 and EU-Bell Chrome 2 or until the tank is no longer subject to the provisions of 40 CFR 63.340. In addition, if the OMP is revised, the Permittee shall keep previous versions of the OMPs on record to be made available for inspection, upon request by IDEM, OAM for a period of five (5) years after each revision to the plan.

Compliance Determination Requirements

- D.1.7 Performance Testing [326 IAC 2-1.1-11] [326 IAC 2-8-5(a)(1)&(4)] [40 CFR 63.343(b)(2)] [40 CFR 63.344]
 - (a) Pursuant to 40 CFR 63.343(b)(2), the Permittee is not required to conduct an initial performance test since the source meets all of the following criteria:
 - (1) Tanks EU-Bell Chrome 1 and EU-Bell Chrome 2 chromium anodizing tanks;
 - (2) A wetting agent is used in the anodizing bath to inhibit chromium emissions from tanks EU-Bell Chrome 1 and EU-Bell Chrome 2; and
 - (3) The Permittee is complying with the applicable surface tension limit in Condition D.1.3 as demonstrated through the continuous compliance monitoring required by 40 CFR 63.343(c)(5)(ii).

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- (b) Although an initial performance test is not required by this permit, the IDEM may require testing when necessary to determine if tanks EU-Bell Chrome 1 and EU-Bell Chrome 2 are in compliance. If testing is required by the IDEM, compliance with the limits specified in Condition D.1.3 shall be determined by a performance test conducted in accordance with Section C Performance Testing.
- (c) Any change, modification, or reconstruction of tanks EU-Bell Chrome 1 and EU-Bell Chrome 2, the chemical fume suppressant containing a wetting agent, or monitoring equipment may require additional performance testing conducted in accordance with 40 CFR 63.344 and Section C Performance Testing.

D.1.8 Establishing Site-Specific Operating Parameter Values [40 CFR 63.343(c)] [40 CFR 63.344(d)]

In lieu of establishing the maximum surface tension during a performance test, the Permittee shall accept 45 dynes/cm as the maximum surface tension value that corresponds to compliance with the applicable emission limitation. The Permittee is exempt from conducting a performance test only if the criteria of 40 CFR 63.343(b)(2) are met.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

- D.1.9 Monitoring to Demonstrate Continuous Compliance [326 IAC 2-8-6(1)] [326 IAC 2-8-5(1)] [40 CFR 63.343(c)]
 - (a) Pursuant to 40 CFR 63.343(c)(5)(ii) and (iii), when using a wetting agent in the anodizing bath to comply with the limits specified in Condition D.1.3, the Permittee shall monitor the surface tension of the electroplating baths. Operation of tanks EU-Bell Chrome 1 and EU-Bell Chrome 2 at a surface tension greater than the value established during a performance test shall constitute noncompliance with the standards. Operation of tanks EU-Bell Chrome 1 and EU-Bell Chrome 2 at a surface tension greater than 45 dynes per centimeter shall constitute noncompliance with the standards.
 - (1) The Permittee shall monitor the surface tension of the anodizing bath during tank operation according to the following schedule:
 - (A) The surface tension shall be measured once every 4 hours during operation of the tank with a stalagmometer or a tensiometer as specified in Method 306B, appendix A of this part.
 - (B) The time between monitoring can be increased if there have been no exceedances. The surface tension shall be measured once every 4 hours of tank operation for the first 40 hours of tank operation after the compliance date. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 8 hours of tank operation. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 40 hours of tank operation on an ongoing basis, until an exceedance occurs. The minimum frequency of monitoring allowed by this subpart is once every 40 hours of tank operation.

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- (C) Once an exceedance occurs as indicated through surface tension monitoring, the original monitoring schedule of once every 4 hours must be resumed. A subsequent decrease in frequency shall follow the schedule laid out in paragraph (B) above. For example, if a Permittee had been monitoring a tank once every 40 hours and an exceedance occurs, subsequent monitoring would take place once every 4 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation on this schedule, monitoring can occur once every 40 hours of tank operation.
- (2) Once a bath solution is drained from tanks EU-Bell Chrome 1 and EU-Bell Chrome 2 and a new solution added, the original monitoring schedule of once every 4 hours must be resumed, with a decrease in monitoring frequency allowed following the procedures in paragraphs (B) and (C) above.
- (b) Tank operation or operating time is defined as that time when a part is in the tank and there is a current running through the tank. If the amount of time that no part is in the tank is fifteen minutes or longer, that time is not considered operating time. Likewise, if the amount of time between placing parts in the tank (i.e., when no part is in the tank) is less that fifteen minutes, that time between plating the two parts is considered operating time.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.10 Record Keeping Requirements [326 IAC 2-8-5(3)] [40 CFR 63.346]

The Permittee shall maintain records to document compliance with Conditions D.1.3, D.1.4 and D.1.6 using the forms provided with this permit. These records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit and include a minimum of the following:

- (a) Inspection records for the chemical fume suppressant containing a wetting agent and monitoring equipment to document that the inspection and maintenance required by Conditions D.1.7 and D.1.9 have taken place. The record can take the form of a checklist and should identify the following:
 - (1) The device inspected;
 - (2) The date of inspection;
 - (3) A brief description of the working condition of the device during the inspection, including any deficiencies found; and
 - (4) Any actions taken to correct deficiencies found during the inspection, including the date(s) such actions were taken.
- (b) Records of all maintenance performed on tanks EU-Bell Chrome 1 and EU-Bell Chrome 2 and monitoring equipment.
- (c) Records of the occurrence, duration, and cause (if known) of each malfunction of tanks EU-Bell Chrome 1 and EU-Bell Chrome 2 and monitoring equipment.
- (d) Records of the occurrence, duration, and cause (if known) of each period of excess emissions of tanks EU-Bell Chrome 1 and EU-Bell Chrome 2 and monitoring equipment as indicated by monitoring data collected in accordance with this condition.

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(e) Records of actions taken during periods of malfunction or excess emissions when such actions are inconsistent with the OMP.

- (f) Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the OMP.
- (g) Test reports documenting results of all performance tests.
- (h) All measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance.
- (i) Records of monitoring data required by 40 CFR 63.343(c) that are used to demonstrate compliance with the standard including the date and time the data are collected.
- (j) The total process operating time, as defined in Condition D.1.9(b), of each tank, during the reporting period.
- (k) Records of the date and time that fume suppressants were added to the electroplating bath, and the amount and type of fume suppressants added.
- (I) All documentation supporting the notifications and reports required by 40 CFR 63.9 and 63.10 (Subpart A, General Provisions) and by Condition D.1.11.
- D.1.11 Reporting Requirements [326 IAC 2-8-5(3)] [326 IAC 3-6-4(b)] [40 CFR 63.344(a), 63.345 and 63.347]

 The notifications and reports required in this section shall be submitted to IDEM, OAM using the address specified in Section C General Reporting Requirements.
 - (a) Notifications:
 - (1) Initial Notifications
 The Permittee shall notify IDEM, OAM in writing that the source is subject to 40 CFR
 Part 63, Subpart N. The notification shall be submitted no later than one hundred
 eighty (180) days after the compliance date and shall contain the information listed
 in 40 CFR 63.347(c)(1).
 - (2) A Notification of Compliance Status (NCS) is required each time that the facility becomes subject to the requirements of 40 CFR Part 63 Subpart N.
 - (A) The NCS shall be submitted to IDEM, OAM, and shall list, for each tank, the information identified in 40 CFR 63.347(e)(2).
 - (B) The NCS for tanks EU-Bell Chrome 1 and EU-Bell Chrome 2 shall be submitted to IDEM, OAM immediately.
 - (5) Notification of Construction or Reconstruction
 Pursuant to 40 CFR 63.345(b)(1), the Permittee may not construct a new tank subject
 to 40 CFR 63, Subpart N (including non-affected tanks defined in 40 CFR 63.344(e))
 without submitting a Notification of Construction or Reconstruction (NCR) to IDEM,
 OAM. In addition, the Permittee may not change, modify, or reconstruct tanks EUBell Chrome 1 and EU-Bell Chrome 2 without submitting a Notification of Construction
 or Reconstruction (NCR) to IDEM, OAM.
 - (A) The NCR shall contain the information identified in 40 CFR 63.345(b) (2) and (3).

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- (B) A change, modification, or reconstruction of this facility includes any change in the air pollution control techniques, the addition of add-on control devices, or the construction of duct work for the purpose of controlling both existing tanks and non-affected facilities by a common control technique or device.
- (C) A complete application to construct new chromium electroplating or chromium anodizing tanks serves as this notification. Likewise, the complete application to modify or reconstruct tanks EU-Bell Chrome 1 and EU-Bell Chrome 2 serves as this notification.
- (D) Pursuant to 326 IAC 2-1.1-2(a), permission must be received from IDEM, OAM before construction, modification, or reconstruction may commence.

(b) Performance Test Results

The Permittee shall document results from any future performance tests in a complete test report that contains the information required in 40 CFR 344(a).

The Permittee shall submit reports of performance test results as part of the Notification of Compliance Status, described in 40 CFR 63.347(e), no later than forty-five (45) days following the completion of the performance test.

(c) Ongoing Compliance Status Report

The Permittee shall prepare summary reports to document the ongoing compliance status of tanks EU-Bell Chrome 1 and EU-Bell Chrome 2 using the Ongoing Compliance Status Report form provided with this permit. This report shall contain the information specified in 40 CFR 63.347(g)(3).

Because tanks EU-Bell Chrome 1 and EU-Bell Chrome 2 are located at site that is an area source of hazardous air pollutants (HAPs), the Ongoing Compliance Status Report shall be retained on site and made available to IDEM, OAM upon request.

- (1) The Ongoing Compliance Status Report shall be completed according to the following schedule except as provided in paragraphs (c)(2).
 - (A) The first report shall cover the period from the start-up date of the emissions units to December 31 of the year in which the emissions units begin operation.
 - (B) Following the first year of reporting, the report shall be completed on a calendar year basis with the reporting period covering from January 1 to December 31.
- (2) If either of the following conditions are met, semiannual reports shall be prepared and submitted to IDEM, OAM:
 - (A) The total duration of excess emissions (as indicated by the monitoring data collected by the Permittee in accordance with 40 CFR 63.343(c)) is one percent (1%) or greater of the total operating time as defined in Condition D.1.9(b) for the reporting period; or
 - (B) The total duration of malfunctions of the add-on air pollution control device and monitoring equipment is five percent (5%) or greater of the total operating time as defined in Condition D.1.9(b).

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Once the Permittee reports an exceedance as defined above, Ongoing Compliance Status Reports shall be submitted semiannually until a request to reduce reporting frequency in accordance with 40 CFR 63.347(g)(2) is approved.

(3) IDEM, OAM may determine on a case-by-case basis that the summary report shall be completed more frequently and submitted, or that the annual report shall be submitted instead of being retained on site, if these measures are necessary to accurately assess the compliance status of the source.

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SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(c) One (1) vapor degreaser, known as EU-Vapor Deg, installed in 1965, exhausting to Stack BOX, capacity: 100 pounds of aluminum parts per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Hazardous Air Pollutants (HAPs) [326 IAC 2-8]

The total source, including the vapor degreasing and the surface coating, shall use less than 10 tons per consecutive twelve month period of each individual HAP and less than 25 tons per year of any combination of HAPs. This usage limit is required to limit the potential to emit of each individual HAP to less than 10 tons per year and the potential to emit of any combination of HAPs to less than 25 tons per year. Compliance with this limit makes 326 IAC 2-7 (Part 70) not applicable.

D.2.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-6]

- (a) Pursuant to 326 IAC 8-3-6(a) (Organic Solvent Degreasing Operations: Open top vapor degreaser operation and control requirements), the owner or operator of an open top vapor degreaser shall ensure that the following control equipment requirements are met:
 - (1) Equip the degreaser with a cover that can be opened and closed easily without disturbing the vapor zone.
 - (2) Equip the degreaser with the following switches:
 - (A) A condenser flow switch and thermostat which shuts off sump heat if condenser coolant stops circulating or becomes too warm.
 - (B) A spray safety switch which shuts off spray pump if the vapor level drops more than ten (10) centimeters (four (4) inches).
 - (3) Equip the degreaser with a permanent, conspicuous label which lists the operating requirements outlined below in (b).
 - (4) Equip the degreaser with one (1) of the following control devices:
 - (A) A freeboard ratio of seventy-five hundredth (0.75) or greater and a powered cover if the degreaser opening is greater than one (1) square meter (ten and eight-tenths (10.8) square feet).
 - (B) A refrigerated chiller.
 - (C) An enclosed design in which the cover opens only when the article is actually entering or exiting the degreaser.

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(D) A carbon adsorption system with ventilation which, with the cover open, achieves a ventilation rate of greater than or equal to fifteen (15) cubic meters per minute per square meter (fifty (50) cubic feet per minute per square foot)

(E) Other systems of demonstrated equivalent or better control as those outlined in clauses (A) through (D). Such systems shall be submitted to the U.S. EPA as a SIP revision.

of air to vapor interface area and an average of less than twenty-five (25) parts per million of solvent is exhausted over one (1) complete adsorption cycle.

- (b) Pursuant to 326 IAC 8-3-6(b) (Organic Solvent Degreasing Operations: Open top vapor degreaser operation and control requirements), the owner or operator of an open top vapor degreaser shall ensure that the following operating requirements are met:
 - (1) Keep the cover closed at all times except when processing workloads through the degreaser.
 - (2) Minimize solvent carry out emissions by:

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- (A) racking articles to allow complete drainage;
- (B) moving articles in and out of the degreaser at less than three and threetenths (3.3) meters per minute (eleven (11) feet per minute);
- (C) degreasing the workload in the vapor zone at least thirty (30) seconds or until the condensation ceases;
- (D) tipping out any pools of solvent on the cleaned articles before removal; and
- (E) allowing articles to dry within the degreaser for at least fifteen (15) seconds or until visually dry.
- (3) Prohibit the entrance into the degreaser of porous or absorbent materials such as, but not limited to, cloth, leather, wood, or rope.
- (4) Prohibit occupation of more than one-half (½) of the degreaser's open top area with the workload.
- (5) Prohibit the loading of the degreaser to the point where the vapor level would drop to more than ten (10) centimeters (four (4) inches) when the workload is removed.
- (6) Prohibit solvent spraying above the vapor level.
- (7) Repair solvent leaks immediately or shut down the degreaser if leaks cannot be repaired immediately.
- (8) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste by solvent by weight could evaporate.
- (9) Prohibit the exhaust ventilation rate from exceeding twenty (20) cubic meters per minute per square meter (sixty-five (65) cubic feet per minute per square foot) of degreaser open area unless a greater ventilation rate is necessary to meet Occupational Safety and Health Administration requirements.

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(10) Prohibit the use of workplace fans near the degreaser opening.

(11) Prohibit visually detectable water in the solvent exiting the water separator.

D.2.3 General Provisions Relating to HAPs [326 IAC 20-1-1][40 CFR Part 63, Subpart A]

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 63, Subpart T.

- D.2.4 Halogenated Solvent Cleaning Machine NESHAP [40 CFR Part 63, Subpart T] [326 IAC 20-6-1]

 This facility is subject to 40 CFR Part 63, Subpart T, (Halogenated Solvent Cleaning Machine NESHAP), which is incorporated by reference as 326 IAC 20-6-1. A copy of the rule is attached.
 - (a) Pursuant to 40 CFR 63.463(a) & (b), the Permittee shall conform to the following design requirements:
 - (1) The cleaning machine shall be designed or operated such that it has a reduced room draft as described in 40 CFR 63.463(e)(2)(ii).
 - (2) The cleaning machine shall be employed with a control combination of freeboard ratio of 1.0, reduced room draft, and superheated vapor or other equivalent methods of control as determined using the procedure in 40 CFR 63.469.
 - (3) Cleaning machine shall have an automated parts handling system capable of moving parts or parts baskets at a speed of 3.4 meters per minutes (11 feet per minute) or less from the initial loading of parts through removal of cleaned parts.
 - (4) Cleaning machine shall be equipped with a device that shuts off sump heat if the sump liquid solvent level drops to the sump heater coils.
 - (5) Cleaning machine shall have a primary condenser.
 - (6) Cleaning machine shall be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser.
 - (b) Pursuant to 40 CFR 63.463 (d), the following work and operational practice requirements for the degreasing operation are applicable:
 - (1) Control air disturbances across the cleaning machine opening(s) by creating a reduced room draft as described in 40 CFR 63.463(e)(2)(ii).
 - (2) The parts baskets or the parts being cleaned in the cleaning machine shall not occupy more than 50 percent of the solvent/air interface area unless the parts baskets or parts are introduced at a speed of 0.9 meters per minute (3 feet per minute) or less.
 - (3) Any spraying operations shall be done within the vapor zone or within a section of the solvent cleaning machine that is not directly exposed to the ambient air.
 - (4) Parts shall be oriented so that the solvents drains from them freely. Parts having cavities or blind holes shall be tipped or rotated before being removed from any solvent cleaning machine unless an equally effective approach has been approved by the commissioner.

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(5) Parts baskets or parts shall not be removed from any solvent cleaning machine until dripping has stopped.

- (6) During startup of each vapor cleaning machine, the primary condenser shall be turned on before the sump heater.
- (7) During shutdown of each vapor cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.
- (8) When solvent is added or drained from any solvent cleaning machine, the solvent shall be transferred using threaded or other leak proof couplings and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface.
- (9) Each solvent cleaning machine and associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the commissioner's satisfaction to achieve the same or better results as those recommended by the manufacturer.
- (10) Each operator of a solvent cleaning machine shall complete and pass the applicable sections of the test of solvent cleaning operating procedures in appendix B of 40 CFR 63, if requested during an inspection by the commissioner.
- (11) Waste solvents, still bottoms, and sump bottoms shall be collected and stored in closed containers. The closed containers may contain a device that would allow pressure relief, but would not allow liquid solvent to drain from the container.
- (12) Sponges, fabric, wood, and paper products shall not be cleaned.
- (c) That pursuant to 40 CFR 63.463 (e), the Permittee shall comply with the following requirements:
 - (1) The Permittee shall conduct monitoring of each control device used to comply with §63.463 as provided in 40 CFR 63.466, monitoring procedures.
 - (2) Determine during each monitoring period if the control device used to comply with the above standards meets the following requirements:
 - (A) When using a reduced room draft the Permittee shall:
 - (i) ensure that the flow or movement of air across the top of the free-board area of the solvent cleaning machine or within the solvent cleaning machine enclosure does not exceed 15.2 meters per minute (50 feet per minute) at anytime as measured using the procedures in 40 CFR 63.466(d).
 - (ii) establish and maintain the operating conditions under which the wind speed was demonstrated to be 15.2 meters per minute (50 feet per minute) or less as described in 40 CFR 63.466 (d).
 - (B) When using a superheated vapor system the Permittee shall:

Remote Controls, Inc. Mishawaka, Indiana Permit Reviewer: CAO/MES

- (i) ensure that the temperature of the solvent vapor at the center of the superheated vapor zone is at least 10EF above the solvent's boiling point.
- (ii) ensure that the manufacturer's specifications for determining the minimum proper dwell time within the superheated vapor system is followed.
- (iii) ensure that parts remain within the superheated vapor for at least the minimum proper dwell time.
- (3) An exceedance has occurred if:
 - (A) the requirements of paragraphs (c)(2)(B)(ii), (c)(2)(C)(i), (c)(2)(D)(i), (c)(2) (E), (c)(2)(F)(ii), (c)(2)(F)(ii), (c)(2)(G)(ii), and (c)(2)(G)(iii) of this condition are not met; and
 - (B) the requirements of paragraphs (c)(2)(A), (c)(2)(B)(i), (c)(2)(C)(ii), (c)(2)(D) (ii), (c)(2)(F)(i), and (c)(2)(G)(i) of this condition have not been met and are not corrected within 15 days of detection. Adjustments or repairs shall be made to the solvent cleaning system or control device to reestablish required levels. The parameters must be remeasured immediately upon adjustment or repair and demonstrated to be within the required limits.
- (4) the owner or operator shall report all exceedances and all corrections and adjustments made to avoid an exceedance as specified in 40 CFR 63.468.

D.2.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Compliance Determination Requirements

D.2.6 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

The Permittee is not required to test this facility by this permit or by 40 CFR Part 63; 40 CFR 63.465 Test Methods. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance.

D.2.7 HAP Emissions

Compliance with Condition D.2.1 shall be demonstrated within 30 days of the end of each month based on the total hazardous air pollutant usage for the most recent twelve (12) month period.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.2.8 Monitoring Procedures [40 CFR 63.466] [326 IAC 20-6-1]

That pursuant to 40 CFR 63.466 the Permittee shall comply with the following monitoring procedures:

(a) The Permittee shall conduct monitoring and record the results on a weekly basis for the control devices, as appropriate, specified in paragraph(s) below:

The Permittee shall use a thermometer or thermocouple to measure the temperature at the center of the superheated solvent vapor zone while the solvent cleaning machine is in the idling mode.

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(b) The Permittee shall conduct monitoring and record the results on a monthly basis for the control devices, as appropriate, specified in paragraph below:

- (c) The Permittee shall monitor the hoist speed as described below:
 - (1) The Permittee shall determine the hoist speed by measuring the time it takes for the hoist to travel a measured distance. The speed is equal to the distance in meters divided by the time in minutes.
 - (2) The monitoring shall be conducted monthly. If after the first year, no exceedances of the hoist speed are measured, the Permittee may begin monitoring the hoist speed quarterly.
 - (3) If the exceedance of the hoist speed occurs during quarterly monitoring, the monitoring frequency returns to the monthly until another year of compliance without an exceedance is demonstrated.
 - (4) If the Permittee can demonstrate to the commissioner's satisfaction in the initial compliance report that the hoist cannot exceed a speed of 3.4 meters per minute (11 feet per minute), the required monitoring frequency is quarterly, including during the first year of compliance.
- (d) The Permittee shall conduct monitoring and record the results, for a reduced room draft, as specified in the following paragraphs:
 - (1) The Permittee shall conduct an initial monitoring test of the wind speed and of room parameters, quarterly monitoring of wind speed, and weekly monitoring of room parameters as specified below:
 - (A) measure the wind speed within 6 inches above the top of the freeboard area of the solvent cleaning machine using the following procedures:
 - (i) determine the direction of the wind current by slowly rotating a velometer or similar device until the maximum speed is located.
 - (ii) orient a velometer in the direction of the wind current at each of the four corners of the machine.
 - (iii) record the reading for each corner.
 - (iv) average the values obtained at each corner and record the average wind speed.
 - (B) monitor on a weekly basis the room parameters established during the initial compliance test that are used to achieve the reduced room draft.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.2.9 Record keeping Requirements

- (a) Record keeping requirements for the vapor degreaser are as follows:
 - (1) The Permittee shall maintain, in written or electronic form, records of the following information specified below, for the life time of the machine,

(A) Owners's manuals, or if not available, written maintenance and operating procedures, for the solvent cleaning machine and control equipment.

- (B) The date of installation of the solvent cleaning machine and all of its control devices. If the exact date of the installation is not known, a letter certifying that the cleaning machine and its control devices were installed prior to, or on, November 29, 1993, or after November 29, 1993, may be substituted.
- (C) Records of the halogenated HAP solvent content for each solvent used in a solvent cleaning machine.
- (2) The Permittee shall maintain, in written or electronic form, records of the following information specified below for a period of 5 years:
 - (A) The results of control device monitoring required under 40 CFR 63.466.
 - (B) Information on the actions taken to comply with 40 CFR 63.463(e) and (f). This information shall include records of written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to accepted levels.
 - (C) Estimates of annual solvent consumption for each solvent cleaning machine.
- (b) To document compliance with Condition D.2.1, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the HAP usage limits established in Condition D.2.1.
 - (1) The solvent usage for each month;
 - (2) The total HAP usage for each month; and
 - (3) The weight of HAPs emitted for each compliance period.
- (c) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

D.2.10 Reporting Requirements

Permit Reviewer: CAO/MES

(a) A summary of the information to document compliance with Condition D.2.4 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, and to the following address:

United States Environmental Protection Agency, Region V Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J) 77 West Jackson Boulevard Chicago, Illinois 60604-3590

- (1) An initial notification report for the batch vapor degreaser was submitted on August 10, 1995.
- (2) An initial statement of compliance for the batch vapor degreaser was submitted on October 27, 1998.

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(3) The Permittee shall submit an annual report by February 1 of each year following the one for which the reporting is being made. This report shall include the requirements as follows:

- (A) A signed statement from the facility owner or his designee stating that, "All operators of solvent cleaning machines have received training on the proper operation of solvent cleaning machines and their control devices sufficient to pass the test required in 40 CFR 63.463(d)(10)."
- (B) An estimate of solvent consumption for each solvent cleaning machine during the reporting period.
- (4) The Permittee shall submit an exceedance report to the commissioner semiannually except when, the commissioner determines, on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source or, an exceedance occurs. Once an exceedance has occurred the Permittee shall follow a quarterly reporting format until a request to reduce reporting frequency under paragraph 40 CFR 63.468 (i) of this section is approved. Exceedance reports shall be delivered or postmarked by the 30th day following the end of each calender half or quarter, as appropriate. The exceedance report shall include the applicable information as given below:
 - (A) Information on the actions taken to comply with 40 CFR 63.463(e) and (f). This information shall include records of written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to accepted levels.
 - (B) If an exceedance has occurred, the reason for the exceedance and a description of the actions taken.
 - (C) If no exceedances of a parameter have occurred, or a piece of equipment has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.
- (5) That pursuant to 40 CFR 63.463 (i), the Permittee who is required to submit an exceedance report on a quarterly (or more frequent) basis may reduce the frequency of reporting to semiannual if the following conditions are met:
 - (A) The source has demonstrated a full year of compliance without an exceedance.
 - (B) The Permittee continues to comply with all relevant record keeping and monitoring requirements specified in Subpart A (General Provisions) and in 40 CFR 63, Subpart T.
 - (C) The commissioner does not object to a reduced frequency of reporting for the affected source as provided in paragraphs (e)(3)(iii) of Subpart A (General Provisions) of 40 CFR 63.
- (6) The Permittee of a solvent cleaning machine requesting an equivalency determination, as described in 40 CFR 63.469 shall submit an equivalency request report to the commissioner and receive an approval prior to startup.

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(b) A quarterly summary of the information to document compliance with Condition D.2.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Permit Reviewer: CAO/MES

SECTION D.3

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

- (d) Surface coating activities consisting of the following:
 - (1) One (1) spray paint gun, known as EU-SG1, installed in 1975, equipped with air atomization spray guns and dry filters for overspray control and exhausted to Stack SSBX, capacity: 1.874 aluminum parts per hour.
 - One (1) spray paint gun, known as EU-SG2, installed in 1975, equipped with air atomization spray guns and dry filters for overspray control and exhausted to Stack LSBX, capacity: 28.7292 pounds of aluminum parts per hour.
 - (3) One (1) small electric paint curing oven bank, consisting of three (3) miniature ovens, known as EU-SMOVEN, installed in 1965, exhausted to Stack S, capacity: 6.652 pounds of aluminum parts per hour.
 - (4) One (1) large electric paint curing oven, known as EU-LGOVEN, installed in 1965, exhausted to Stack T, capacity: 23.863 aluminum parts per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.3.1 Hazardous Air Pollutants (HAPs) [326 IAC 2-8]

The total source, including the vapor degreasing and the surface coating, shall use less than 10 tons per consecutive twelve month period of each individual HAP and less than 25 tons per year of any combination of HAPs. This usage limit is required to limit the potential to emit of each individual HAP to less than 10 tons per year and the potential to emit of any combination of HAPs to less than 25 tons per year. Compliance with this limit makes 326 IAC 2-7 (Part 70) not applicable.

D.3.2 Volatile Organic Compound (VOC) [326 IAC 8-2-9]

The VOC delivered to the applicators, minus the VOC recovered when coating metal parts shall be limited to less than 15 pounds per day. This will limit VOC emissions from coating metal parts to less than 15 pounds per day and make the requirements of 326 IAC 8-2-9, Miscellaneous Metal Coating, not applicable pursuant to 326 IAC 8-2-1(c), 326 IAC 8-2-1(d).

D.3.3 Particulate Matter (PM) [326 IAC 6-3-2]

The PM from the two (2) spray paint guns shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

 $E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

D.3.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Remote Controls, Inc. Mishawaka, Indiana

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Compliance Determination Requirements

D.3.5 Volatile Organic Compounds (VOC) Emissions

Compliance with Condition D.3.2 shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound usage for the most recent twelve (12) month period.

D.3.6 Particulate Matter (PM)

The dry filters for PM control shall be in operation at all times when the two (2) spray paint guns are in operation.

D.3.7 HAP Emissions

Compliance with Condition D.3.1 shall be demonstrated within 30 days of the end of each month based on the total hazardous air pollutant usage for the most recent twelve (12) month period.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.3.8 Monitoring

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating stacks (SSBX and LSBX) while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C Compliance Monitoring Plan Failure to Take Response Steps, shall be considered a violation of this permit.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.3.9 Record Keeping Requirements

- (a) To document compliance with Conditions D.3.1 and D.3.2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC content limits established in Condition D.3.2.
 - (1) The amount and VOC and HAP content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
 - (2) A log of the dates of use;
 - (3) The cleanup solvent usage for each day;

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- (4) The total VOC and HAP usage for each day; and
- (5) The weight of VOCs and HAPs emitted for each compliance period.
- (b) To document compliance with Condition D.3.6 and D.3.8, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.
- (c) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

D.3.10 Reporting Requirements

Quarterly summaries of the information to document compliance with Conditions D.3.1 and D.3.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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SECTION D.4

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(e) One (1) vapor blast unit, known as EU-Vapor Blast, installed in 1965, equipped with a cyclonically assisted dry filter, exhausted to Stack LM, capacity: 1.25 aluminum parts per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.4.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the vapor blast unit shall not exceed 0.551 pounds per hour when operating at a process weight rate of less than 100 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

 $E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

Compliance Determination Requirements

D.4.2 Particulate Matter (PM)

The cyclonically assisted dry filters for PM control shall be in operation and control emissions from the vapor blast unit at all times that the vapor blast unit is in operation.

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SECTION D.5

FACILITY CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, including one (1) boiler with a heat input capacity of 3.2 million British thermal units per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.5.1 Particulate Matter (PM) [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (Particulate Matter Emission Limitations for Sources of Indirect Heating, the PM emissions from the boiler shall be limited to 0.6 pound per million British thermal unit heat input.

Remote Controls, Inc. Mishawaka, Indiana

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT **OFFICE OF AIR MANAGEMENT COMPLIANCE DATA SECTION**

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) **CERTIFICATION**

This certification shall be included when submitting monitoring testing reports/results

Source Name: Remote Controls, Inc.

512 South Merrifield Avenue, Mishawaka, Indiana 46544 Source Address: Mailing Address: 512 South Merrifield Avenue, Mishawaka, Indiana 46544

FESOP No.: F141-7924-00167

	or other documents as required by this permit.
	Please check what document is being certified:
9	Annual Compliance Certification Letter
9	Test Result (specify)
9	Report (specify)
9	Notification (specify)
9	Affidavit (specify)
9	Other (specify)
	rtify that, based on information and belief formed after reasonable inquiry, the statements and information ne document are true, accurate, and complete.
Sig	nature:
Prir	ited Name:
Title	e/Position:
Dat	e:

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR MANAGEMENT

COMPLIANCE DATA SECTION
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674

Fax: 317-233-5967

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) EMERGENCY/DEVIATION OCCURRENCE REPORT

Source Name: Remote Controls, Inc.

If any of the following are not applicable, mark N/A

Source Address: 512 South Merrifield Avenue, Mishawaka, Indiana 46544
Mailing Address: 512 South Merrifield Avenue, Mishawaka, Indiana 46544

FESOP No.: F141-7924-00167

This form consists of 2 pages

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, , ,
Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency/Deviation:
Describe the cause of the Emergency/Deviation:

Permit Reviewer: CAO/MES

If any of the f	ollowing are not applicable, mark N/A	Page 2 of 2
Date/Time Er	mergency/Deviation started:	
Date/Time Er	mergency/Deviation was corrected:	
Was the facili Describe:	ity being properly operated at the time of the emergency/devia	ion? Y N
Type of Pollu	tants Emitted: TSP, PM-10, SO ₂ , VOC, NO _X , CO, Pb, other:	
Estimated am	nount of pollutant(s) emitted during emergency/deviation:	
Describe the	steps taken to mitigate the problem:	
Describe the	corrective actions/response steps taken:	
Describe the	measures taken to minimize emissions:	
imminent inju	describe the reasons why continued operation of the facilities a try to persons, severe damage to equipment, substantial loss of raw materials of substantial economic value:	
	Form Completed by: Title / Position: Date: Phone:	

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR MANAGEMENT

COMPLIANCE DATA SECTION FESOP Quarterly Report

Source Name: Remote Controls, Inc.

Source Address: 512 South Merrifield Avenue, Mishawaka, Indiana 46544
Mailing Address: 512 South Merrifield Avenue, Mishawaka, Indiana 46544

FESOP No.: F141-7924-00167

Facility: Surface Coating Facilities

Parameter: VOC Usage

Limit: No more than fifteen (15) pounds per day

Month: _____ Year: _____

	VOC	VOC	VOC		VOC	VOC	VOC
Day	Usage	Usage	Usage	Day	Usage	Usage	Usage
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			
16							

9	Deviation/s occurred in this month.
	Deviation has been reported on:

Submitted by:	
Title/Position:	
Signature:	
Date:	
Phone:	

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR MANAGEMENT COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name:	Remote Controls, Inc.
--------------	-----------------------

Source Address: 512 South Merrifield Avenue, Mishawaka, Indiana 46544 Mailing Address: 512 South Merrifield Avenue, Mishawaka, Indiana 46544

FESOP No.: F141-7924-00167

Facility: Entire Source (including degreasing and surface coating)

Parameter: Individual HAP usage

Limit: Less than 10 tons of each individual HAP per consecutive twelve (12) month period

YEAR: _____

	HAP Usage	HAP Usage HAP Usage	
Month	This Month	Previous 11 Months	12 Month Total

9	No deviation	occurred in	this o	warter

9 Deviation/s occurred in this quarte	∍r.
---------------------------------------	-----

Deviation has been reported on:

Submitted by:

Title / Position:
Signature:
Date:
Phone:

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR MANAGEMENT COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name:	Remote Controls, Inc.
--------------	-----------------------

Source Address: 512 South Merrifield Avenue, Mishawaka, Indiana 46544 Mailing Address: 512 South Merrifield Avenue, Mishawaka, Indiana 46544

FESOP No.: F141-7924-00167

Facility: Entire Source (including degreasing and surface coating)

Parameter: Total HAP usage

Limit: Less than 25 tons of any combination of HAPs per consecutive twelve (12) month

period

YEAR:	

Month	HAP Usage	HAP Usage	HAP Usage
	This Month	Previous 11 Months	12 Month Total

9	Deviation/s occurred in this quarter.

Deviation has been reported on:

Submitted by:
Title / Position:
Signature:
Date:
Phone:

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR MANAGEMENT COMPLIANCE DATA SECTION

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) QUARTERLY COMPLIANCE MONITORING REPORT

Source Name: Source Address: Mailing Address: FESOP No.:			, Mishawaka, Indiana 46544 , Mishawaka, Indiana 46544		
	Months: t	:o _	Year:		
this permit. This compliance monitor may be attached	report shall be submitted oring requirements and the if necessary. This form of the control of	l qua e da can	s met all the compliance monitor arterly based on a calendar yete(s) of each deviation must be be supplemented by attaching ease specify in the box marked	ear. Any dev reported. A the Emerge	viation from the dditional pages ency/ Deviation
9 NO DEVIATION	S OCCURRED THIS REP	POR	TING PERIOD.		
9 THE FOLLOWIN	NG DEVIATIONS OCCUR	RED	THIS REPORTING PERIOD.		
	Ionitoring Requirement nit Condition D.1.3)		Number of Deviations	Date of ea	ach Deviation
Titl	rm Completed By:				
Da Ph	te: one:				
1 11					

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR MANAGEMENT COMPLIANCE DATA SECTION

PART 70 OPERATING PERMIT CHROMIUM ELECTROPLATING AND ANODIZING NESHAP ONGOING COMPLIANCE STATUS REPORT

Source Name: Remote Controls, Inc.

Source Address: 512 South Merrifield Avenue, Mishawaka, Indiana 46544
Mailing Address: 512 South Merrifield Avenue, Mishawaka, Indiana 46544

FESOP No.: F141-7924-00167

Tank ID #:

Type of process: Anodizing

Monitoring Parameter: Surface tension of the electroplating or anodizing bath

Parameter Value: 45 dynes per centimeter

Limits: Total chromium concentration may not exceed 0.01 mg/dscm

This form is to be used to report compliance for the Chromium Electroplating and Anodizing NESHAP only.

The frequency for completing this report may be altered by IDEM, OAM, Compliance Branch.

<u>Companies classified as a major source:</u> <u>Companies classified as an area source:</u> submit this report no later than 30 days after the end of the reporting period. complete this report no later than 30 days after the end of the reporting period,

and retain on site unless otherwise notified.

This form consists of 2 pages

Page 1 of 2

BEGINNING AND ENDING DATES OF THE REPORTING PERIOD:

TOTAL OPERATING TIME OF THE TANK DURING THE REPORTING PERIOD:

MAJOR AND AREA SOURCES: CHECK ONE

- 9 NO DEVIATIONS OF THE MONITORING PARAMETER ASSOCIATED WITH THIS TANK FROM THE COMPLIANT VALUE OR RANGE OF VALUES OCCURRED DURING THIS REPORTING PERIOD.
- THE MONITORING PARAMETER DEVIATED FROM THE COMPLIANT VALUE OR RANGE OF VALUES DURING THIS REPORTING PERIOD (THUS INDICATING THE EMISSION LIMITATION MAY HAVE BEEN EXCEEDED, WHICH COULD RESULT IN MORE FREQUENT REPORTING).

AREA (I.E., NON-MAJOR) SOURCES OF HAP ONLY:

IF DEVIATIONS OCCURRED, LIST THE AMOUNT OF TANK OPERATING TIME EACH MONTH THAT MONITORING RECORDS SHOW THE MONITORING PARAMETER DEVIATED FROM THE COMPLIANT VALUE OR RANGE OF VALUES.

JAN	APR	JUL	ОСТ
FEB	MAY	AUG	NOV
MAR	JUN	SEP	DEC

HARD CHROME TANKS / MAXIMUM RECTIFIER CAPACITY LIMITED IN ACCORDANCE WITH 40 CFR 63.342(c)(2) ONLY: LIST THE ACTUAL AMPERE-HOURS CONSUMED (BASED ON AN AMP-HR METER) BY THE INDIVIDUAL TANK.			
JAN	APR	JUL	OCT
FEB	MAY	AUG	NOV
MAR	JUN	SEP	DEC

Remote Controls, Inc. Mishawaka, Indiana Page 57 of 57 F 141-7924-00167

Permit Reviewer: CAO/MES

CHROMIUM ELECTROPLATING AND ANODIZING NESHAP ONGOING COMPLIANCE STATUS REPORT

ATTACH A SEPARATE PAGE IF NEEDED	Page 2 of 2
IF THE OPERATION AND MAINTENANCE PLAN REQUIRED BY 40 CFR 63.342 (f)(3) WAS NOT FOLLOWED, FOR THE REASONS FOR NOT FOLLOWING THE PLAN AND DESCRIBE THE ACTIONS TAKEN FOR THAT EVEN	
DESCRIBE ANY CHANGES IN TANKS, RECTIFIERS, CONTROL DEVICES, MONITORING, ETC. SINCE THE LAS	T STATI IS DEDODT.
DESCRIBE AINT CHANGES IN TAINNS, RECTIFIERS, CONTROL DEVICES, MONITORING, ETC. SINCE THE LAS	I STATUS REPORT.
ADDITIONAL COMMENTS:	
ALL SOURCES: CHECK ONE	
9 I CERTIFY THAT THE WORK PRACTICE STANDARDS IN 40 CFR 63.342(f) WERE FOLLOWED IN AC	
OPERATION AND MAINTENANCE PLAN ON FILE; AND, THAT THE INFORMATION CONTAINED IN THE AND TRUE TO THE BEST OF MY KNOWLEDGE.	IIS REPORT IS ACCURATE
THE WORK PRACTICE STANDARDS IN 40 CFR 63.342(f) WERE NOT FOLLOWED IN ACCORDANCE	WITH THE OPERATION
THE WORK PRACTICE STANDARDS IN 40 CFR 63.342(f) WERE NOT FOLLOWED IN ACCORDANCE AND MAINTENANCE PLAN ON FILE, AS EXPLAINED ABOVE AND/OR ON ATTACHED.	: WITH THE OPERATION
Cultimitted by:	
Submitted by: Title (Desition)	<u> </u>
Title/Position:	
Signature:	
Date:	
Phone:	

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Management

Addendum to the

Technical Support Document for Federally Enforceable State Operating Permit (FESOP)

Source Name: Remote Controls, Inc.

Source Location: 512 South Merrifield Avenue, Mishawaka, IN 46544

County: St. Joseph F 141-7924-00167

SIC Code: 3741/3479

Permit Reviewer: CarrieAnn Ortolani

On July 5, 2000, the Office of Air Management (OAM) had a notice published in the Tribune, South Bend, Indiana, stating that Remote Controls, Inc. had applied for a Federally Enforceable State Operating Permit (FESOP) to operate a chromium anodizing and surface coating source with dry filters as control. The notice also stated that OAM proposed to issue a FESOP for this operation and provided information on how the public could review the proposed FESOP and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this FESOP should be issued as proposed.

On July 11, 2000, Randy Martin of Industrial Safety and Environmental Services, on behalf of Remote Controls, Inc. submitted comments on the proposed FESOP. The comments are as follows (The permit language, if changed, has deleted language as strikeouts and new language **bolded**):

Comment 1:

Anodizing tank EU-CA1 was removed in 1997 and will not be replaced. They ask that references to this tank be removed from sections A and D of the permit.

Response 1:

Anodizing tank EU-CA1 has been removed from the facility description in Section D.1 and from Section A.2, and Conditions D.1.2, D.1.3, D.1.4, D.1.5, D.1.6, D.1.7, D.1.9, D.1.10 and D.1.11 have been revised as follows:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) chromium anodizing tank, known as EU-Bell Chrome 1, installed in 1965, exhausting to Stack BAVSX, capacity: 1.1628 pounds of aluminum parts per hour.
- (b) One (1) chromium anodizing tank, known as EU-Bell Chrome 2, installed in 1998, used as an alternate EU-Bell Chrome 1 for parts that do not fit in EU-Bell Chrome 1 and using the anodizing bath from EU-Bell Chrome 1, exhausting to Stack BAVSX, capacity: 1.1628 pounds of aluminum parts per hour.

- (c) One (1) chromium anodizing tank, known as EU-CA1, installed in 1965, exhausting to Stack HCSX2, capacity: 3.9844 pounds of aluminum parts per hour.
- (d)(c) One (1) vapor degreaser, known as EU-Vapor Deg, installed in 1965, exhausting to Stack BOX, capacity: 100 pounds of aluminum parts per hour.
- (e)(d) Surface coating activities consisting of the following:
 - (1) One (1) spray paint gun, known as EU-SG1, installed in 1975, equipped with air atomization spray guns and dry filters for overspray control and exhausted to Stack SSBX, capacity: 1.874 aluminum parts per hour.
 - (2) One (1) spray paint gun, known as EU-SG2, installed in 1975, equipped with air atomization spray guns and dry filters for overspray control and exhausted to Stack LSBX, capacity: 28.7292 pounds of aluminum parts per hour.
 - One (1) small electric paint curing oven, known as EU-SMOVEN, installed in 1965, exhausted to Stack S, capacity: 6.652 pounds of aluminum parts per hour.
 - (4) One (1) large electric paint curing oven, known as EU-LGOVEN, installed in 1965, exhausted to Stack T, capacity: 23.863 aluminum parts per hour.
- (f)(e) One (1) vapor blast unit, known as EU-Vapor Blast, installed in 1965, equipped with a cyclonically assisted dry filter, exhausted to Stack LM, capacity: 1.25 aluminum parts per hour.

D.1.2 Chromium Electroplating and Anodizing NESHAP [326 IAC 20-8-1] [40 CFR Part 63, Subpart N] The provisions of 40 CFR 63, Subpart N - National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks, which are incorporated by reference as 326 IAC 20-8-1, apply to tanks EU-Bell Chrome 1, and EU-Bell Chrome 2, and EU-CA1. A copy of this rule is attached.

D.1.3 Chromium Emissions Limitation [40 CFR 63.342(c)] [40 CFR 63.343(a)(1)&(2)]

- (a) The emission limitations in this condition apply only during tank operation, and also apply during periods of startup and shutdown as these are routine occurrences for tanks subject to 326 IAC 20-8-1. The emission limitations do not apply during periods of malfunction. The work practice standards that address operation and maintenance must be followed during malfunctions and periods of excess emissions.
- (b) During tank operation, the Permittee shall control chromium emissions discharged to the atmosphere from tanks EU-Bell Chrome 1, **and** EU-Bell Chrome 2, **and** EU-CA1 by:
 - (1) Not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed one-hundredth milligrams of total chromium per dry standard cubic meter of ventilation air (0.01 mg/dscm) [equivalent to four and fourtenths times ten raised to the power of negative six grains of total chromium per dry standard cubic foot of ventilation air (4.4x10⁻⁶ gr/dscf)]; or

(2) Not allowing the surface tension of the anodizing bath contained within the tanks to exceed forty-five dynes per centimeter (45 dynes/cm) [equivalent to three and one-tenth times ten raised to the power of negative three pound-force per foot (3.1x10⁻³ lb_f/ft)] at any time during operation of tanks EU-Bell Chrome 1, **and** EU-Bell Chrome 2, and EU-CA1 when a chemical fume suppressant containing a wetting agent is used.

D.1.4 Work Practice Standards [40 CFR 63.342(f)]

The following work practice standards apply to tanks EU-Bell Chrome 1, **and** EU-Bell Chrome 2, and EU-CA1:

- (a) At all times, including periods of startup, shutdown, malfunction and excess emissions, the Permittee shall operate and maintain tanks EU-Bell Chrome 1, **and** EU-Bell Chrome 2, and EU-CA1, including the fume suppressant containing a wetting agent and monitoring equipment, in a manner consistent with good air pollution control practices, consistent with the Operation and Maintenance Plan (OMP) required by Condition D.1.6.
- (b) Malfunctions and excess emissions shall be corrected as soon as practicable after their occurrence in accordance with the OMP required by Condition D.1.6.
- (c) These operation and maintenance requirements are enforceable independent of emissions limitations or other requirements in this section.
- (d) Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to IDEM, OAM, which may include, but is not limited to, monitoring results; review of the OMP, procedures, and records; and inspection of the source.
- (e) Based on the results of a determination made under paragraph (d) of this condition, IDEM, OAM may require that the Permittee make changes to the OMP required by Condition D.1.6. Revisions may be required if IDEM, OAM finds that the plan:
 - (1) Does not address a malfunction or period of excess emissions that has occurred;
 - (2) Fails to provide for the operation of tanks EU-Bell Chrome 1, **and** EU-Bell Chrome 2, and EU-CA1, the fume suppressant containing a wetting agent and process monitoring equipment during a malfunction or period of excess emissions in a manner consistent with good air pollution control practices; or
 - (3) Does not provide adequate procedures for correcting malfunctioning process equipment, fume suppressant containing a wetting agent, monitoring equipment or other causes of excess emissions as quickly as practicable.

The work practice standards that address operation and maintenance must be followed during malfunctions and periods of excess emissions.

D.1.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan (PMP), in accordance with Section B-Preventive Maintenance Plan, of this permit, is required for tanks EU-Bell Chrome 1, **and** EU-Bell Chrome 2, **and** EU-CA1.

D.1.6 Operation and Maintenance Plan [40 CFR 63.342(f)(3)]

- (a) The Permittee shall prepare an Operation and Maintenance Plan (OMP) to be implemented no later than the startup date of tanks EU-Bell Chrome 1, **and** EU-Bell Chrome 2, and EU-CA1. The OMP shall specify the operation and maintenance criteria for tanks EU-Bell Chrome 1, **and** EU-Bell Chrome 2, and EU-CA1, the fume suppressant containing a wetting agent and monitoring equipment and shall include the following elements:
 - (1) Manufacturers recommendations for maintenance of the monitoring equipment used to measure surface tension;
 - (2) A standardized checklist to document the operation and maintenance criteria for tanks EU-Bell Chrome 1, **and** EU-Bell Chrome 2, and EU-CA1, the chemical fume suppressant containing a wetting agent and the monitoring equipment.
 - (3) Procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions or periods of excess emissions as indicated by monitoring data do not occur.
 - (4) A systematic procedure for identifying malfunctions and periods of excess emissions of tanks EU-Bell Chrome 1, and EU-Bell Chrome 2, and EU-CA1, the chemical fume suppressant containing a wetting agent and monitoring equipment; and for implementing corrective actions to address such malfunctions and periods of excess emissions.
- (b) The Permittee may use applicable standard operating procedures (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other existing plans such as the PMP required in Condition D.1.5, as the OMP, provided the alternative plans meet the above listed criteria in Condition D.1.6(a).
- (c) If the OMP fails to address or inadequately addresses an event that meets the characteristics of a malfunction or period of excess emissions at the time the plan is initially developed, the Permittee shall revise the OMP within forty-five (45) days after such an event occurs. The revised plan shall include procedures for operating and maintaining tanks EU-Bell Chrome 1, and EU-Bell Chrome 2, and EU-CA1, the chemical fume suppressant containing a wetting agent and the monitoring equipment, during similar malfunction or period of excess emissions events, and a program for corrective action for such events.
- (d) If actions taken by the Permittee during periods of malfunction or period of excess emissions are inconsistent with the procedures specified in the OMP, the Permittee shall record the actions taken for that event and shall report by phone such actions within two (2) working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within seven (7) working days after the end of the event, unless the Permittee makes alternative reporting arrangements, in advance, with IDEM, OAM.
- (e) The Permittee shall keep the written OMP on record after it is developed to be made available, upon request, by IDEM, OAM for the life of tanks EU-Bell Chrome 1, **and** EU-Bell Chrome 2, and EU-CA1 or until the tank is no longer subject to the provisions of 40 CFR 63.340. In addition, if the OMP is revised, the Permittee shall keep previous versions of the OMPs on record to be made available for inspection, upon request by IDEM, OAM for a period of five (5) years after each revision to the plan.

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Performance Testing [326 IAC 2-1.1-11] [326 IAC 2-8-5(a)(1)&(4)] [40 CFR 63.343(b)(2)] [40 CFR 63.7] D.1.7 [40 CFR 63.344]

- Pursuant to 40 CFR 63.343(b)(2), the Permittee is not required to conduct an initial perform-(a) ance test since the source meets all of the following criteria:
 - (1) Tanks EU-Bell Chrome 1, and EU-Bell Chrome 2, and EU-CA1 chromium anodizing tanks;
 - (2) A wetting agent is used in the anodizing bath to inhibit chromium emissions from tanks EU-Bell Chrome 1, and EU-Bell Chrome 2, and EU-CA1; and
 - (3)The Permittee is complying with the applicable surface tension limit in Condition D.1.3 as demonstrated through the continuous compliance monitoring required by 40 CFR 63.343(c)(5)(ii).
- (b) Although an initial performance test is not required by this permit, the IDEM may require testing when necessary to determine if tanks EU-Bell Chrome 1, and EU-Bell Chrome 2, and EU-CA1 are in compliance. If testing is required by the IDEM, compliance with the limits specified in Condition D.1.3 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.
- (c) Any change, modification, or reconstruction of tanks EU-Bell Chrome 1, and EU-Bell Chrome 2, and EU-CA1, the chemical fume suppressant containing a wetting agent, or monitoring equipment may require additional performance testing conducted in accordance with 40 CFR 63.344 and Section C - Performance Testing.
- Monitoring to Demonstrate Continuous Compliance [326 IAC 2-8-6(1)] [326 IAC 2-8-5(1)] [40 CFR D.1.9 63.343(c)]
 - Pursuant to 40 CFR 63.343(c)(5)(ii) and (iii), when using a wetting agent in the anodizing bath to comply with the limits specified in Condition D.1.3, the Permittee shall monitor the surface tension of the electroplating baths. Operation of tanks EU-Bell Chrome 1, or EU-Bell Chrome 2, or EU-CA1 at a surface tension greater than the value established during a performance test shall constitute noncompliance with the standards. Operation of tanks EU-Bell Chrome 1, or EU-Bell Chrome 2 or EU-CA1 at a surface tension greater than 45 dynes per centimeter shall constitute noncompliance with the standards.
 - (1) The Permittee shall monitor the surface tension of the anodizing bath during tank operation according to the following schedule:
 - (A) The surface tension shall be measured once every 4 hours during operation of the tank with a stalagmometer or a tensiometer as specified in Method 306B, appendix A of this part.
 - (B) The time between monitoring can be increased if there have been no exceedances. The surface tension shall be measured once every 4 hours of tank operation for the first 40 hours of tank operation after the compliance date. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 8 hours of tank operation. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 40 hours of tank operation on an ongoing basis, until an exceedance occurs. The minimum frequency of monitoring allowed by this subpart is once every 40 hours of tank operation.

- (C) Once an exceedance occurs as indicated through surface tension monitoring, the original monitoring schedule of once every 4 hours must be resumed. A subsequent decrease in frequency shall follow the schedule laid out in paragraph (B) above. For example, if a Permittee had been monitoring a tank once every 40 hours and an exceedance occurs, subsequent monitoring would take place once every 4 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation on this schedule, monitoring can occur once every 40 hours of tank operation.
- (2) Once a bath solution is drained from tanks EU-Bell Chrome 1, **and** EU-Bell Chrome 2, and EU-CA1 and a new solution added, the original monitoring schedule of once every 4 hours must be resumed, with a decrease in monitoring frequency allowed following the procedures in paragraphs (B) and (C) above.
- (b) Tank operation or operating time is defined as that time when a part is in the tank and there is a current running through the tank. If the amount of time that no part is in the tank is fifteen minutes or longer, that time is not considered operating time. Likewise, if the amount of time between placing parts in the tank (i.e., when no part is in the tank) is less that fifteen minutes, that time between plating the two parts is considered operating time.

D.1.10 Record Keeping Requirements [326 IAC 2-8-5(3)] [40 CFR 63.346]

The Permittee shall maintain records to document compliance with Conditions D.1.3, D.1.4 and D.1.6 using the forms provided with this permit. These records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit and include a minimum of the following:

- (a) Inspection records for the chemical fume suppressant containing a wetting agent and monitoring equipment to document that the inspection and maintenance required by Conditions D.1.7 and D.1.9 have taken place. The record can take the form of a checklist and should identify the following:
 - (1) The device inspected;
 - (2) The date of inspection;
 - (3) A brief description of the working condition of the device during the inspection, including any deficiencies found; and
 - (4) Any actions taken to correct deficiencies found during the inspection, including the date(s) such actions were taken.
- (b) Records of all maintenance performed on tanks EU-Bell Chrome 1, **and** EU-Bell Chrome 2, and EU-CA1 and monitoring equipment.
- (c) Records of the occurrence, duration, and cause (if known) of each malfunction of tanks EU-Bell Chrome 1, **and** EU-Bell Chrome 2, and EU-CA1 and monitoring equipment.
- (d) Records of the occurrence, duration, and cause (if known) of each period of excess emissions of tanks EU-Bell Chrome 1, **and** EU-Bell Chrome 2, and EU-CA1 and monitoring equipment as indicated by monitoring data collected in accordance with this condition.

- (e) Records of actions taken during periods of malfunction or excess emissions when such actions are inconsistent with the OMP.
- (f) Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the OMP.
- (g) Test reports documenting results of all performance tests.
- (h) All measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance.
- (i) Records of monitoring data required by 40 CFR 63.343(c) that are used to demonstrate compliance with the standard including the date and time the data are collected.
- (j) The total process operating time, as defined in Condition D.1.9(b), of each tank, during the reporting period.
- (k) Records of the date and time that fume suppressants were added to the electroplating bath, and the amount and type of fume suppressants added.
- (I) All documentation supporting the notifications and reports required by 40 CFR 63.9 and 63.10 (Subpart A, General Provisions) and by Condition D.1.11.
- D.1.11 Reporting Requirements [326 IAC 2-8-5(3)] [326 IAC 3-6-4(b)] [40 CFR 63.344(a), 63.345 and 63.347]

 The notifications and reports required in this section shall be submitted to IDEM, OAM using the address specified in Section C General Reporting Requirements.
 - (a) Notifications:
 - (1) Initial Notifications
 The Permittee shall notify IDEM, OAM in writing that the source is subject to 40 CFR
 Part 63, Subpart N. The notification shall be submitted no later than one hundred
 eighty (180) days after the compliance date and shall contain the information listed
 in 40 CFR 63.347(c)(1).
 - (2) A Notification of Compliance Status (NCS) is required each time that the facility becomes subject to the requirements of 40 CFR Part 63 Subpart N.
 - (A) The NCS shall be submitted to IDEM, OAM, and shall list, for each tank, the information identified in 40 CFR 63.347(e)(2).
 - (B) The NCS for tanks EU-Bell Chrome 1, **and** EU-Bell Chrome 2, and EU-CA1 shall be submitted to IDEM, OAM immediately.
 - (5) Notification of Construction or Reconstruction Pursuant to 40 CFR 63.345(b)(1), the Permittee may not construct a new tank subject to 40 CFR 63, Subpart N (including non-affected tanks defined in 40 CFR 63.344(e)) without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAM. In addition, the Permittee may not change, modify, or reconstruct tanks EU-Bell Chrome 1, and EU-Bell Chrome 2, and EU-CA1 without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAM.
 - (A) The NCR shall contain the information identified in 40 CFR 63.345(b) (2) and (3).

- (B) A change, modification, or reconstruction of this facility includes any change in the air pollution control techniques, the addition of add-on control devices, or the construction of duct work for the purpose of controlling both existing tanks and non-affected facilities by a common control technique or device.
- (C) A complete application to construct new chromium electroplating or chromium anodizing tanks serves as this notification. Likewise, the complete application to modify or reconstruct tanks EU-Bell Chrome 1, **and** EU-Bell Chrome 2, and EU-CA1 serves as this notification.
- (D) Pursuant to 326 IAC 2-1.1-2(a), permission must be received from IDEM, OAM before construction, modification, or reconstruction may commence.

(b) Performance Test Results

The Permittee shall document results from any future performance tests in a complete test report that contains the information required in 40 CFR 344(a).

The Permittee shall submit reports of performance test results as part of the Notification of Compliance Status, described in 40 CFR 63.347(e), no later than forty-five (45) days following the completion of the performance test.

(c) Ongoing Compliance Status Report

The Permittee shall prepare summary reports to document the ongoing compliance status of tanks EU-Bell Chrome 1, **and** EU-Bell Chrome 2, and EU-CA1 using the Ongoing Compliance Status Report form provided with this permit. This report shall contain the information specified in 40 CFR 63.347(g)(3).

Because tanks EU-Bell Chrome 1, **and** EU-Bell Chrome 2, and EU-CA1 are located at site that is an area source of hazardous air pollutants (HAPs), the Ongoing Compliance Status Report shall be retained on site and made available to IDEM, OAM upon request.

- (1) The Ongoing Compliance Status Report shall be completed according to the following schedule except as provided in paragraphs (c)(2).
 - (A) The first report shall cover the period from the start-up date of the emissions units to December 31 of the year in which the emissions units begin operation.
 - (B) Following the first year of reporting, the report shall be completed on a calendar year basis with the reporting period covering from January 1 to December 31.
- (2) If either of the following conditions are met, semiannual reports shall be prepared and submitted to IDEM, OAM:
 - (A) The total duration of excess emissions (as indicated by the monitoring data collected by the Permittee in accordance with 40 CFR 63.343(c)) is one percent (1%) or greater of the total operating time as defined in Condition D.1.9(b) for the reporting period; or
 - (B) The total duration of malfunctions of the add-on air pollution control device and monitoring equipment is five percent (5%) or greater of the total operating time as defined in Condition D.1.9(b).

Once the Permittee reports an exceedance as defined above, Ongoing Compliance Status Reports shall be submitted semiannually until a request to reduce reporting frequency in accordance with 40 CFR 63.347(g)(2) is approved.

(3) IDEM, OAM may determine on a case-by-case basis that the summary report shall be completed more frequently and submitted, or that the annual report shall be submitted instead of being retained on site, if these measures are necessary to accurately assess the compliance status of the source.

Comment 2:

Paint curing oven EU-SMOVEN actually consists of three single ovens, all exhausting to Stack S. In aggregate, these ovens' capacity is 6.652 pounds per hour of aluminum parts, or 2.217 pounds per hour each. To make this easier to write into the permit, this can be referred to as:

One (1) small electric paint curing oven bank, consisting of three miniature ovens, known as EU-SMOVEN, installed in 1965, exhausted to Stack S, capacity: 6.652 pounds of aluminum parts per hour.

Response 2:

Section A.2(e) (Now A.2(d)) and the facility description in Section D.3 are revised as follows:

(e)(d) Surface coating activities consisting of the following:

- (1) One (1) spray paint gun, known as EU-SG1, installed in 1975, equipped with air atomization spray guns and dry filters for overspray control and exhausted to Stack SSBX, capacity: 1.874 aluminum parts per hour.
- (2) One (1) spray paint gun, known as EU-SG2, installed in 1975, equipped with air atomization spray guns and dry filters for overspray control and exhausted to Stack LSBX, capacity: 28.7292 pounds of aluminum parts per hour.
- One (1) small electric paint curing oven **bank**, **consisting of three (3) miniature ovens**, known as EU-SMOVEN, installed in 1965, exhausted to Stack S, capacity: 6.652 pounds of aluminum parts per hour.
- (4) One (1) large electric paint curing oven, known as EU-LGOVEN, installed in 1965, exhausted to Stack T, capacity: 23.863 aluminum parts per hour.

Comment 3:

For Condition D.3.5, Remote Controls has determined that it can maintain emissions of less than 15.0 pounds per day of VOC for all painting of miscellaneous metal parts. According to 326 IAC 8-1-1(b), this would mean that the restrictions of 326 IAC 8-2-9 do not apply. They can establish daily records of paint use to demonstrate the nonapplicability of 8-2-9, and are prepared to do so.

Response 3:

Condition D.3.2 is changed as follows:

D.3.2 Volatile Organic Compound (VOC) [326 IAC 8-2-9]

The VOC delivered to the applicators, minus the VOC recovered when coating metal parts shall be limited to less than 15 pounds per day. This will limit VOC emissions from coating metal parts to less than 15 pounds per day and make the requirements of 326 IAC 8-2-9, Miscellaneous Metal Coating, not applicable pursuant to 326 IAC 8-2-1(c), 326 IAC 8-2-1(d). Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the daily volume weighted average volatile organic compound (VOC) content of coating applied to the metal parts shall be limited to a daily volume weighted average of 3.5 pounds of VOCs per gallon of coating less water, as delivered to the applicator for any calendar day, for air dried and forced warm air dried coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

In addition, the reporting form for VOC is revised as shown in the attached reporting form, and Conditions D.3.5 and D.3.9 are changed as follows:

D.3.5 Volatile Organic Compounds (VOC) Emissions

Compliance with Condition D.3.2 shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound usage for the most recent twelve (12) month period.

- (a) Compliance with the VOC content limitations contained in Condition D.3.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAM, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.
- (b) Pursuant to 326 IAC 8-1-2(a)(7), when volume weighted averaging of the coatings is used to determine compliance with the limitation set in Condition D.3.2. This volume weighted average shall be determined by the following equation:

 $A = [3C \times U)/3U]$

Where: A is the volume weighted average in pounds VOC per gallon
C is the VOC content of the coating in pounds VOC per gallon
and U is the usage rate of the coating in gallons per unit, hour, day or other
unit of time

D.3.9 Record Keeping Requirements

- (a) To document compliance with Conditions D.3.1 and D.3.2, the Permittee shall maintain records in accordance with (1) through (6) (5) below. Records maintained for (1) through (6) (5) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC content limits established in Condition D.3.2.
 - (1) The amount and VOC and HAP content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
 - (2) A log of the dates of use;
 - (3) The volume weighted VOC content of the coatings used for each day;

- (4)(3) The cleanup solvent usage for each day;
- (5)(4) The total VOC and HAP usage for each day; and
- (6)(5) The weight of VOCs and HAPs emitted for each compliance period.
- (b) To document compliance with Condition D.3.6 and D.3.8, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.
- (c) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

Upon further review, the OAM has decided to make the following change to the FESOP: The permit language is changed to read as follows (deleted language appears as strikeouts, new language is **bolded**):

Condition B.12(c) is revised as follows:

- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was based on continuous or intermittent data;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
 - (5) Such other facts as specified in Sections D of this permit, IDEM, OAM, may require to determine the compliance status of the source.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR MANAGEMENT

COMPLIANCE DATA SECTION FESOP Quarterly Report

Source Name:	Remote Controls, Inc.
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Source Address: 512 South Merrifield Avenue, Mishawaka, Indiana 46544
Mailing Address: 512 South Merrifield Avenue, Mishawaka, Indiana 46544

FESOP No.: F141-7924-00167

Facility: Surface Coating Facilities
Parameter: VOC **Usage** Content

Limit: No more than fifteen (15) pounds per day 3.5 pounds per gallon of coating less

water, based on a daily volume weighted average

 $A = [3C \times U)/3U]$

Where: A is the volume weighted average in pounds VOC per gallon

C is the VOC content of the coating in pounds VOC per gallon

and U is the usage rate of the coating in gallons per unit, hour, day or other

unit of time

Phone:

Month: _____ Year:

	VOC	VOC	VOC	_ 10411	VOC	VOC	VOC
_				_			
Day	Usage	Usage	Usage	Day	Usage	Usage	Usage
	Content	Content	Content		Content	Content	Content
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			
16							

9	Deviation	ation occurred in this mont n/s occurred in this month n has been reported on:	
Submitt Title/Po	-		
Signatu	re:		
Date:			

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for a Federally Enforceable State Operating Permit (FESOP)

Source Background and Description

Source Name: Remote Controls, Inc.

Source Location: 512 South Merrifield Avenue, Mishawaka, IN 46544

County: St. Joseph SIC Code: 3741/3479

Operation Permit No.: F 141-7924-00167
Permit Reviewer: CarrieAnn Ortolani

The Office of Air Management (OAM) has reviewed a FESOP application from Remote Controls, Inc. relating to the operation of a chromium anodizing and surface coating source.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices, or emission units and pollution control devices that were exempt from permitting rules at the time construction and operation began:

- (a) One (1) chromium anodizing tank, known as EU-Bell Chrome 1, installed in 1965, exhausting to Stack BAVSX, capacity: 1.1628 pounds of aluminum parts per hour.
- (b) One (1) chromium anodizing tank, known as EU-Bell Chrome 2, installed in 1998, used as an alternate EU-Bell Chrome 1 for parts that do not fit in EU-Bell Chrome 1 and using the anodizing bath from EU-Bell Chrome 1, exhausting to Stack BAVSX, capacity: 1.1628 pounds of aluminum parts per hour.
- (c) One (1) chromium anodizing tank, known as EU-CA1, installed in 1965, exhausting to Stack HCSX2, capacity: 3.9844 pounds of aluminum parts per hour.

Unpermitted Emission Units and Pollution Control Equipment

The source also consists of the following unpermitted facilities/units:

- (d) One (1) vapor degreaser, known as EU-Vapor Deg, installed in 1965, exhausting to Stack BOX, capacity: 100 pounds of aluminum parts per hour.
- (e) Surface coating activities consisting of the following:

- (1) One (1) spray paint gun, known as EU-SG1, installed in 1975, equipped with air atomization spray guns and dry filters for overspray control and exhausted to Stack SSBX, capacity: 1.874 aluminum parts per hour.
- (2) One (1) spray paint gun, known as EU-SG2, installed in 1975, equipped with air atomization spray guns and dry filters for overspray control and exhausted to Stack LSBX, capacity: 28.7292 pounds of aluminum parts per hour.
- One (1) small electric paint curing oven, known as EU-SMOVEN, installed in 1965, exhausted to Stack S, capacity: 6.652 pounds of aluminum parts per hour.
- (4) One (1) large electric paint curing oven, known as EU-LGOVEN, installed in 1965, exhausted to Stack T, capacity: 23.863 aluminum parts per hour.
- (f) One (1) vapor blast unit, known as EU-Vapor Blast, installed in 1965, equipped with a cyclonically assisted dry filter, exhausted to Stack LM, capacity: 1.25 aluminum parts per hour.

New Emission Units and Pollution Control Equipment Receiving Prior Approval

There are no new facilities proposed at this source during this review process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, including one (1) boiler with a heat input capacity of 3.2 million British thermal units per hour.
- (b) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.
- (c) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (d) A laboratory as defined in 326 IAC 2-7-1(21)(D).

Existing Approvals

There are no previous approvals for this source.

Enforcement Issue

- (a) IDEM is aware that equipment has been constructed and operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled *Unpermitted Emission Units and Pollution Control Equipment*.
- (b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

(c) This source was previously not in compliance with 326 IAC 8-3-6, which requires that the freeboard ratio of the open top vapor degreaser, if so equipped as a control device, be seventy-five hundredths (0.75) or greater. IDEM conducted an inspection on May 29, 1998, at Remote Controls, Inc. and observed that the freeboard ratio of the open top vapor degreaser was greater than seventy-five hundredths (0.75), and that the facility was in compliance with all applicable provisions of 326 IAC 8-3-6. An Agreed Order, CAUSE NO. A-4381, was established and there are no enforcement actions pending regarding this issue.

Recommendation

The staff recommends to the Commissioner that the FESOP be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete Part 70 permit application for the purposes of this review was received on December 18, 1996. Additional information was received on February 20 and 28, 1997, November 13, 1998, December 4, 1998, January 26, 1999, May 19 and May 26, 2000. On June 6, 2000 a letter was received from the source withdrawing the Part 70 application and requesting that the same application be processed as a FESOP.

A notice of completeness letter was mailed to the source on March 17, 1997.

Emission Calculations

See pages 1 through 4 of 4 of Appendix A of this document for detailed emissions calculations.

Chromium Compounds from chromium anodizing have been estimated by the applicant using AP-42, Table 12.20-2, as yielding 0.00137 and 0.00137 pounds per hour or 0.006 and 0.006 tons per year for the EU-Bell Chrome 1 and EU-CA1 anodizing tanks, and 0.0006 tons per year for EU-Bell Chrome 2.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)							
PM	35.7							
PM ₁₀	35.7							
SO ₂	1.00							
VOC	56.8							
СО	2.00							
NO _X	2.00							

Note: For the purpose of determining Title V applicability for particulates, PM_{10} , not PM, is the regulated pollutant in consideration.

HAPs	Potential To Emit (tons/year)
Xylene	5.33
Toluene	3.64
Formaldehyde	0.078
Ethyl benzene	0.570
Toluene Diisocyanate	0.014
Glycol Ethers	1.11
Hexamethylene Diisocyanate	0.001
Cumene	0.0002
Chromium Compounds	1.30
Lead	1.98
Manganese	0.144
MIBK	3.12
MEK	2.83
Cobalt Compounds	0.100
Triethylamine	0.003
Trichloroethylene	20.0
TOTAL	40.2

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

- (b) Fugitive Emissions Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.
- (c) This source, otherwise required to obtain a Title V permit, has agreed to accept a permit with federally enforceable limits that restrict its PTE to below the Title V emission levels. Therefore, this source will be issued a Federally Enforceable State Operating Permit (FESOP), pursuant to 326 IAC 2-8.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 1998 OAM emission data.

Pollutant	Actual Emissions (tons/year)
PM	not reported
PM ₁₀	not reported
SO ₂	not reported
VOC	0.069
СО	not reported
NO _X	not reported
HAPs	not reported

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Federally Enforceable State Operating Permit.

	Potential to Emit (tons/year)											
Process/facility	PM	PM ₁₀	SO ₂	VOC	СО	NO _x	HAPs					
Chromium Anodizing	0.00	0.00	0.00	0.00	0.00	0.00	0.013					
Vapor Degreaser	0.00	0.00	0.00	< 10.0	0.00	0.00	< 10.0					
Surface Coating	1.41	1.41	0.00	35.8	0.00	0.00	20.2					
One (1) vapor blast unit	0.324	0.324	0.00	0.00	0.00	0.00	0.00					
Insignificant Activities	1.00	1.00	1.00	1.00	2.00	2.00	negligible					
Total Emissions	2.73	2.73	1.00	< 46.8	2.00	2.00	Single < 10 Total < 25					

In order to qualify for 326 IAC 2-8, FESOP, the source has agreed to HAP emission limitations of less than 10 tons per year of each individual HAP and less than 25 tons per year of any combination of HAPs. Since all emissions from the vapor degreaser are Trichloroethylene, the HAP and VOC emissions from the vapor degreaser are limited to less than 10 tons per year. Therefore, the VOC emissions from the entire source will be less than 46.8 tons per year.

County Attainment Status

The source is located in St. Joseph County.

Pollutant	Status
PM ₁₀	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	maintenance
СО	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO $_{\rm X}$) are precursors for the formation of ozone. Therefore, VOC and NO $_{\rm X}$ emissions are considered when evaluating the rule applicability relating to the ozone standards. St. Joseph County has been designated as maintenance attainment for ozone. Therefore, VOC and NO $_{\rm X}$ emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) St. Joseph County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) The one (1) natural gas-fired boiler, constructed in 1976 and having a maximum heat input capacity of 3.2 million British thermal units per hour, is not subject to the New Source Performance Standards, 326 IAC 12, 40 CFR 60.40, 40 CFR 60.40a, 40 CFR 60.40b and 40 CFR 60.40c, Subparts D, Da, Db and Dc because it has a capacity less than 10 million British thermal units per hour.
- (c) Tanks EU-Bell Chrome 1, EU-Bell Chrome 2, and EU-CA1 are subject to the National Emission Standards for Hazardous Air Pollutants, 326 IAC 14, (40 CFR 63, Subpart N, and 326 IAC 20-1-1). Pursuant to 40 CFR 63, Subpart N, and 326 IAC 20-1-1, the chromium electroplating operations are subject to the following conditions:
 - (1) The provisions of 40 CFR Part 63, Subpart A General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 63, Subpart N.
 - (2) Emission limitation:

- (A) The Permittee shall comply with the requirements of this rule on and after the compliance date for the tanks.
- (B) During tank operation, the Permittee shall control chromium emissions discharged to the atmosphere from tanks EU-Bell Chrome 1, EU-Bell Chrome 2, and EU-CA1 by:

Not allowing the surface tension of the anodizing bath contained within the tanks to exceed forty-five dynes per centimeter (45 dynes/cm) [equivalent to three and one-tenth times ten raised to the power of negative three pound-force per foot (3.1x10⁻³ lb_t/ft)] at any time during operation of tank EU-CA1 when a chemical fume suppressant containing a wetting agent is used.

(3) Monitoring Requirements:

The surface tension of the chromium electroplating bath contained with the tank shall not exceed forty-five (45) dynes per centimeter at any time during the operation of the tank if a chemical fume suppressant containing a wetting agent is used to demonstrate compliance.

Each time that surface tension monitoring exceeds forty-five (45) dynes per centimeter, the frequency of monitoring must revert back to every four (4) hours of tank operation. After forty (40) hours of monitoring tank operation every four (4) hours with no exceedances, surface tension measurement may be conducted once every eight (8) hours of tank operation. Once there have been no exceedances during forty (40) hours of tank operation, surface tension measurement may be conducted once every forty (40) hours of tank operation on an ongoing basis, until an exceedance occurs.

An alternative emission limit of 0.01 milligram per day standard cubic meter (mg/dscm) will be applicable if the chromium electroplating bath does not meet the limit above.

(4) Reporting Requirements:

A summary report shall be prepared to document the ongoing compliance status of the chromium electroplating operation. This report shall be completed annually, retained on site, and made available to IDEM upon request. If there are significant exceedance of chromium air emission limits (as defined in 40 CFR Part 63.347(h) (2)), then semiannual reports shall be submitted to:

Indiana Department of Environmental Management Air Compliance Branch, Office of Air Management Chromium Electroplating 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206

- (5) The chromium electroplating operations shall be subject to the record keeping and reporting requirement as indicated in the chromium electroplating NESHAP.
- (d) The open top vapor degreaser is a batch cleaning machine and is subject to the National Emission Standards for Hazardous Air Pollutants, 326 IAC 14, (40 CFR 60.460, Subpart T), which is incorporated by reference as 326 IAC 20-6-1. A copy of the rule is attached.
 - (1) The provisions of 40 CFR Part 63, Subpart A General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 63, Subpart T.

- (2) That pursuant to 40 CFR 63.463(a) & (b), the Permittee shall conform to the following design requirements:
 - (A) The cleaning machine shall be designed or operated such that it has a reduced room draft as described in 40 CFR 63.463(e)(2)(ii).
 - (B) The cleaning machine shall be employed with a control combination of free-board ratio of 1.0, reduced room draft, and superheated vapor or other equivalent methods of control as determined using the procedure in 40 CFR 63.469).
 - (C) Cleaning machine shall have an automated parts handling system capable of moving parts or parts baskets at a speed of 3.4 meters per minutes (11 feet per minute) or less from the initial loading of parts through removal of cleaned parts.
 - (D Cleaning machine shall be equipped with a device that shuts off sump heat if the sump liquid solvent level drops to the sump heater coils.
 - (E) Cleaning machine shall have a primary condenser.
 - (F) Cleaning machine shall be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser.
- (3) That pursuant to 40 CFR 63.463 (d), the following work and operational practice requirements for the degreasing operation are applicable:
 - (A) Control air disturbances across the cleaning machine opening(s) by creating a reduced room draft as described in 40 CFR 63.463(e)(2)(ii).
 - (B) The parts baskets or the parts being cleaned in the cleaning machine shall not occupy more than 50 percent of the solvent/air interface area unless the parts baskets or parts are introduced at a speed of 0.9 meters per minute (3 feet per minute) or less.
 - (C) Any spraying operations shall be done within the vapor zone or within a section of the solvent cleaning machine that is not directly exposed to the ambient air.
 - (D) Parts shall be oriented so that the solvents drains from them freely. Parts having cavities or blind holes shall be tipped or rotated before being removed from any solvent cleaning machine unless an equally effective approach has been approved by the commissioner.
 - (E) Parts baskets or parts shall not be removed from any solvent cleaning machine until dripping has stopped.
 - (F) During startup of each vapor cleaning machine, the primary condenser shall be turned on before the sump heater.
 - (G) During shutdown of each vapor cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.

- (H) When solvent is added or drained from any solvent cleaning machine, the solvent shall be transferred using threaded or other leak proof couplings and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface.
- (I) Each solvent cleaning machine and associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the commissioner's satisfaction to achieve the same or better results as those recommended by the manufacturer.
- (J) Each operator of a solvent cleaning machine shall complete and pass the applicable sections of the test of solvent cleaning operating procedures in appendix B of 40 CFR 63, if requested during an inspection by the commissioner.
- (K) Waste solvents, still bottoms, and sump bottoms shall be collected and stored in closed containers. The closed containers may contain a device that would allow pressure relief, but would not allow liquid solvent to drain from the container.
- (L) Sponges, fabric, wood, and paper products shall not be cleaned.
- (4) That pursuant to 40 CFR 63.463 (e), the Permittee shall comply with the following requirements:
 - (A) The Permittee shall conduct monitoring of each control device used to comply with §63. 463 as provided in 40 CFR 63. 466, monitoring procedures.
 - (B) Determine during each monitoring period if the control device used to comply with the above standards meets the following requirements:
 - (C) When using a reduced room draft the Permittee shall:
 - (i) ensure that the flow or movement of air across the top of the free-board area of the solvent cleaning machine or within the solvent cleaning machine enclosure does not exceed 15.2 meters per minute (50 feet per minute) at anytime as measured using the procedures in 40 CFR 63.466(d).
 - (ii) establish and maintain the operating conditions under which the wind speed was demonstrated to be 15.2 meters per minute (50 feet per minute) or less as described in 40 CFR 63.466 (d).
 - (D) When using a superheated vapor system the Permittee shall:
 - ensure that the temperature of the solvent vapor at the center of the superheated vapor zone is at least 10EF above the solvent's boiling point.
 - (ii) ensure that the manufacturer's specifications for determining the minimum proper dwell time within the superheated vapor system is followed.

- (iii) ensure that parts remain within the superheated vapor for at least the minimum proper dwell time.
- (5) the owner or operator shall report all exceedances and all corrections and adjustments made to avoid an exceedance as specified in 40 CFR 63.468.
- (6) That pursuant to 40 CFR 63.466 the Permittee shall comply with the following monitoring procedures:
 - (A) The Permittee shall conduct monitoring and record the results on a weekly basis for the control devices, as appropriate, specified in paragraph(s) below:

The Permittee shall use a thermometer or thermocouple to measure the temperature at the center of the superheated solvent vapor zone while the solvent cleaning machine is in the idling mode.

- (B) The Permittee shall conduct monitoring and record the results on a monthly basis for the control devices, as appropriate, specified in paragraph below:
 - (i) The Permittee shall determine the hoist speed by measuring the time it takes for the hoist to travel a measured distance. The speed is equal to the distance in meters divided by the time in minutes. The monitoring shall be conducted monthly. If after the first year, no exceedances of the hoist speed are measured, the Permittee may begin monitoring the hoist speed quarterly. If the exceedance of the hoist speed occurs during quarterly monitoring, the monitoring frequency returns to the monthly until another year of compliance without an exceedance is demonstrated. If the Permittee can demonstrate to the commissioner's satisfaction in the initial compliance report that the hoist cannot exceed a speed of 3.4 meters per minute (11 feet per minute), the required monitoring frequency is quarterly, including during the first year of compliance.
 - (ii) The Permittee shall conduct monitoring and record the results, for a reduced room draft, as specified in the following paragraphs:

The Permittee shall conduct an initial monitoring test of the wind speed and of room parameters, quarterly monitoring of wind speed, and weekly monitoring of room parameters as specified below:

- (aa) measure the wind speed within 6 inches above the top of the freeboard area of the solvent cleaning machine by determining the direction of the wind current by slowly rotating a velometer or similar device until the maximum speed is located, orienting a velometer in the direction of the wind current at each of the four corners of the machine, recording the reading for each corner, and averaging the values obtained at each corner and record the average wind speed.
- (bb) monitor on a weekly basis the room parameters established during the initial compliance test that are used to achieve the reduced room draft.

(7) A summary of the information to document compliance with the limitations shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, and to the following address:

United States Environmental Protection Agency, Region V Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J) 77 West Jackson Boulevard Chicago, Illinois 60604-3590

State Rule Applicability - Entire Source

326 IAC 2-4.1-1 (New Source Toxics Control)

Since these facilities were not constructed or reconstructed on or after July 27, 1997, the requirements of 326 IAC 2-4.1-1, New Source Toxics Control, are not applicable.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of VOC in St. Joseph County. Pursuant to this rule, the owner/ operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8) (Emission Statement Operating Year).

326 IAC 2-8-4 (FESOP)

The potential emissions of PM_{10} , SO_2 , VOC, CO and NO_X are less than one hundred (100) tons per year. The potential to emit of each single HAP shall be limited to less than ten (10) tons per year and the potential to emit the combination of all HAPs shall be limited to less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 2-7, do not apply.

326 IAC 5-1 (Opacity Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 6-1-1 (Nonattainment Area Particulate Limitations)

Although this source is located in St. Joseph County, the source is not specifically listed in 326 IAC 6-1-18, the potential PM emissions are less than 100 tons per year, and the actual PM emissions are less than 10 tons per year. Therefore, the requirements of 326 IAC 6-1, Nonattainment area particulate emissions, are not applicable.

326 IAC 6-2-3 (Particulate Emissions Limitations for Facilities Constructed prior to September 21, 1983)

The one (1) insignificant natural gas-fired boiler was constructed in 1976 in St. Joseph County. Therefore, this boiler is subject to the requirements of 326 IAC 6-2-3. This boiler, with a total heat input capacity of 3.2 million British thermal units per hour, must comply with the PM emission limitation of 326 IAC 6-2-3. This limitation is based on the following equation is given in 326 IAC 6-2-3:

$$Pt = C \times a \times h / 76.5 \times Q^{0.75} \times N^{0.25}$$

where:

- Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input
- Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.
- C = Maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain. This shall equal 50 micrograms per cubic meter for a period not to exceed a sixty (60) minute time period.
- N = Number of stacks in fuel burning operation.
- a = Plume rise factor which is used to make allowance for less than theoretical plume rise.
 The value 0.67 shall be used for Q less than or equal to 1,000 mmBtu/hr heat input. The value 0.8 shall be used for Q greater than 1,000 mmBtu/hr heat input.
- h = Stack height in feet.

For the one (1) boiler:

Pt = 50 x 0.67 x 22 / 76.5 x $(3.2)^{0.75}$ x $1^{0.25}$ = 4.03 lb/MMBtu

Pursuant to 326 IAC 6-2-3(e), for Q less than 250 million British thermal units per hour, Pt shall not exceed 0.6 pound per million British thermal units. Therefore, the one (1) boiler is limited to emissions of 0.6 pound per million British thermal units.

The PM emission factor for this boiler is 1.9 pound per million cubic feet of natural gas according to AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3. The potential throughput at this boiler is 28.0 million cubic feet of natural gas per year (3.2 MMBtu/hr x 8,760 hrs/yr x 1 MMCF/ 1,000 MMBtu). Therefore, the potential to emit is 0.027 tons per year (28.0 MMCF/yr x 1.9 lbs/MMCF x 1 ton/2,000 lbs).

 $0.027 \text{ ton/yr} \times (2000 \text{ lbs/ton} / 8760 \text{ hrs/yr}) = 0.006 \text{ lb/hr}$ (0.006 lb/hr / 3.2 MMBtu/hr) = 0.002 lb PM per MMBtu

Therefore, the one (1) boiler will comply with this rule.

326 IAC 6-3-2 (Process Operations)

(a) Pursuant to 326 IAC 6-3 (Process Operations), the particulate matter (PM) from the surface coating activities shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

E = 4.10 P ^{0.67} where E = rate of emission in pounds per hour and P = process weight rate in tons per hour

The dry filters shall be in operation at all times the two (2) spray paint guns are in operation, in order to comply with this limit.

(b) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the one (1) vapor blast unit shall not exceed 0.551 pounds per hour when operating at a process weight rate of less than 100 pounds per hour.

The cyclonically assisted dry filter controlling PM emissions from the one (1) vapor blast unit shall be in operation at all times the vapor blasting is in operation, in order to comply with this limit. The PM emissions from the vapor blasting unit after controls are 0.074 pounds per hour which is less than the allowable PM emission rate of 0.551 pounds per hour. Therefore, the one (1) vapor blast unit is in compliance with this rule.

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

Since all facilities at this source were constructed prior to 1980, the requirements of 326 IAC 8-1-6, New Facilities; General Reduction Requirements, are not applicable.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

Since the surface coating facilities were existing as of July 1, 1990 in St. Joseph County and the VOC emissions can be 15 pounds per day or more, the requirements of 326 IAC 8-2-9, Miscellaneous Metal Coating, can be applicable. Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the daily volume weighted average volatile organic compound (VOC) content of coating delivered to the applicators at the two (2) spray paint guns shall be limited to 3.5 pounds of VOC per gallon of coating less water, for forced warm air dried coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Based on the MSDS submitted by the source and calculations made, the spray booth will comply with this rule by recording the daily volume weighted average VOC content of coatings used each day.

326 IAC 8-3-3 (Organic Solvent Degreasing Operations: open top vapor degreaser operation)

The one (1) open top vapor degreaser was constructed prior to January 1, 1980 in St. Joseph County. Since the degreaser is located at a source that has a potential to emit less than one hundred (100) tons per year of VOC, the requirements of 326 IAC 8-3-3 are not applicable.

326 IAC 8-3-6 (Organic Solvent Degreasing Operations: open top vapor degreaser operation and control requirements)

Since the one (1) open top vapor degreaser was existing as of July 1, 1990 in St. Joseph County and it is an open top vapor degreaser with a solvent interface greater than one (1) square meter, the requirements of 326 IAC 8-3-6, Open top vapor degreaser operation and control requirements, are applicable. Pursuant to 326 IAC 8-3-6, the owner or operator of an open top vapor degreaser shall:

- (a) Ensure that the following control equipment requirements are met:
 - (1) Equip the degreaser with a cover that can be opened and closed easily without disturbing the vapor zone.
 - (2) Equip the degreaser with the following switches:
 - (A) A condenser flow switch and thermostat which shuts off sump heat if condenser coolant stops circulating or becomes too warm.
 - (B) A spray safety switch which shuts off spray pump if the vapor level drops more than ten (10) centimeters (four (4) inches).
 - Equip the degreaser with a permanent, conspicuous label which lists the operating requirements outlined below in (b).
 - (4) Equip the degreaser with one (1) of the following control devices:
 - (A) A freeboard ratio of seventy-five hundredth (0.75) or greater and a powered cover if the degreaser opening is greater than one (1) square meter (ten and eight-tenths (10.8) square feet).
 - (B) A refrigerated chiller.
 - (C) An enclosed design in which the cover opens only when the article is actually entering or exiting the degreaser.
 - (D) A carbon adsorption system with ventilation which, with the cover open, achieves a ventilation rate of greater than or equal to fifteen (15) cubic meters per minute per square meter (fifty (50) cubic feet per minute per square foot) of air to vapor interface area and an average of less than twenty-five (25) parts per million of solvent is exhausted over one (1) complete adsorption cycle.
 - (E) Other systems of demonstrated equivalent or better control as those outlined in clauses (A) through (D). Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Ensure that the following operating requirements are met:
 - (1) Keep the cover closed at all times except when processing workloads through the degreaser.

- (2) Minimize solvent carry out emissions by:
 - (A) racking articles to allow complete drainage;
 - (B) moving articles in and out of the degreaser at less than three and threetenths (3.3) meters per minute (eleven (11) feet per minute);
 - (C) degreasing the workload in the vapor zone at least thirty (30) seconds or until the condensation ceases:
 - (D) tipping out any pools of solvent on the cleaned articles before removal; and
 - (E) allowing articles to dry within the degreaser for at least fifteen (15) seconds or until visually dry.
- (3) Prohibit the entrance into the degreaser of porous or absorbent materials such as, but not limited to, cloth, leather, wood, or rope.
- (4) Prohibit occupation of more than one-half (½) of the degreaser's open top area with the workload.
- (5) Prohibit the loading of the degreaser to the point where the vapor level would drop to more than ten (10) centimeters (four (4) inches) when the workload is removed.
- (6) Prohibit solvent spraying above the vapor level.
- (7) Repair solvent leaks immediately or shut down the degreaser if leaks cannot be repaired immediately.
- (8) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste by solvent by weight could evaporate.
- (9) Prohibit the exhaust ventilation rate from exceeding twenty (20) cubic meters per minute per square meter (sixty-five (65) cubic feet per minute per square foot) of degreaser open area unless a greater ventilation rate is necessary to meet Occupational Safety and Health Administration requirements.
- (10) Prohibit the use of workplace fans near the degreaser opening.
- (11) Prohibit visually detectable water in the solvent exiting the water separator.

326 IAC 8-6 (Organic Solvent Emission Limitations)

The potential to emit VOC from the source is less than one hundred (100) tons per year. Therefore, the requirements of 326 IAC 8-6 are not applicable.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance

Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

- (a) The three (3) chromium anodizing tanks have applicable compliance monitoring conditions as specified below:
 - (1) Pursuant to 40 CFR 63.343(c)(5)(ii) and (iii), when using a wetting agent in the anodizing bath to comply with the applicable limits (specified in Condition D.1.3), the Permittee shall monitor the surface tension of the electroplating baths. Operation of tanks EU-Bell Chrome 1, EU-Bell Chrome 2, and EU-CA1 at a surface tension greater than the value established during a performance test shall constitute noncompliance with the standards. Operation of tanks EU-Bell Chrome 1, EU-Bell Chrome 2, and EU-CA1 at a surface tension greater than 45 dynes per centimeter shall constitute noncompliance with the standards.
 - (A) The Permittee shall monitor the surface tension of the anodizing bath during tank operation according to the following schedule:
 - (i) The surface tension shall be measured once every 4 hours during operation of the tank with a stalagmometer or a tensiometer as specified in Method 306B, appendix A of this part.
 - (ii) The time between monitoring can be increased if there have been no exceedances. The surface tension shall be measured once every 4 hours of tank operation for the first 40 hours of tank operation after the compliance date. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 8 hours of tank operation. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 40 hours of tank operation on an ongoing basis, until an exceedance occurs. The minimum frequency of monitoring allowed by this subpart is once every 40 hours of tank operation.
 - (iii) Once an exceedance occurs as indicated through surface tension monitoring, the original monitoring schedule of once every 4 hours must be resumed. A subsequent decrease in frequency shall follow the schedule laid out in paragraph (B) above. For example, if a Permittee had been monitoring a tank once every 40 hours and an exceedance occurs, subsequent monitoring would take place once every 4 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation on this schedule, monitoring can occur once every 40 hours of tank operation.

- (B) Once a bath solution is drained from tanks EU-Bell Chrome 1, EU-Bell Chrome 2, and EU-CA1 and a new solution added, the original monitoring schedule of once every 4 hours must be resumed, with a decrease in monitoring frequency allowed following the procedures in paragraphs (B) and (C) above.
- (2) Tank operation or operating time is defined as that time when a part is in the tank and there is a current running through the tank. If the amount of time that no part is in the tank is fifteen minutes or longer, that time is not considered operating time. Likewise, if the amount of time between placing parts in the tank (i.e., when no part is in the tank) is less that fifteen minutes, that time between plating the two parts is considered operating time.

These monitoring conditions are necessary to ensure compliance with 40 CFR 63, Subpart N, and 326 IAC 2-8 (FESOP).

- (b) The one (1) vapor degreaser has applicable compliance monitoring conditions as specified below:
 - (1) The Permittee shall conduct monitoring and record the results on a weekly basis for the control devices, as appropriate, specified in paragraph(s) below:
 - The Permittee shall use a thermometer or thermocouple to measure the temperature at the center of the superheated solvent vapor zone while the solvent cleaning machine is in the idling mode.
 - (2) The Permittee shall conduct monitoring and record the results on a monthly basis for the control devices, as appropriate, specified in paragraph below:
 - (3) The Permittee shall monitor the hoist speed as described below:
 - (A) The Permittee shall determine the hoist speed by measuring the time it takes for the hoist to travel a measured distance. The speed is equal to the distance in meters divided by the time in minutes.
 - (B) The monitoring shall be conducted monthly. If after the first year, no exceedances of the hoist speed are measured, the Permittee may begin monitoring the hoist speed quarterly.
 - (C) If the exceedance of the hoist speed occurs during quarterly monitoring, the monitoring frequency returns to the monthly until another year of compliance without an exceedance is demonstrated.
 - (D) If the Permittee can demonstrate to the commissioner's satisfaction in the initial compliance report that the hoist cannot exceed a speed of 3.4 meters per minute (11 feet per minute), the required monitoring frequency is quarterly, including during the first year of compliance.
 - (4) The Permittee shall conduct monitoring and record the results, for a reduced room draft, as specified in the following paragraphs:
 - (A) The Permittee shall conduct an initial monitoring test of the wind speed and of room parameters, quarterly monitoring of wind speed, and weekly monitoring of room parameters as specified below:

- (i) measure the wind speed within 6 inches above the top of the free-board area of the solvent cleaning machine by determining the direction of the wind current by slowly rotating a velometer or similar device until the maximum speed is located, orienting a velometer in the direction of the wind current at each of the four corners of the machine, recording the reading for each corner, and averaging the values obtained at each corner and record the average wind speed.
- (ii) monitor on a weekly basis the room parameters established during the initial compliance test that are used to achieve the reduced room draft.

These monitoring conditions are necessary to ensure compliance with 40 CFR 63.466 and 326 IAC 2-8 (FESOP).

- (c) The surface coating activities have applicable compliance monitoring conditions as specified below:
 - (1) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating stacks (SSBX and LSBX) while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C Compliance Monitoring Plan Failure to Take Response Steps, shall be considered a violation of this permit.
 - (2) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C Compliance Monitoring Plan Failure to Take Response Steps, shall be considered a violation of this permit.
 - (3) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

These monitoring conditions are necessary because the dry filters for overspray control must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-8 (FESOP).

Conclusion

The operation of this chromium anodizing and surface coating source shall be subject to the conditions of the attached proposed FESOP No.: F 141-7924-00167.

Appendix A: Potential Emissions Calculations VOC and Particulate From Surface Coating Operations

Company Name: Remote Controls, Inc.

Address City IN Zip: 512 S. Merrifield Avenue Mishawaka, IN 46544

FESOP: F141-7924
Plt ID: 141-00167
Reviewer: CarrieAnn Ortolani
Date: December 18, 1996

(H20 & Organics) N-4281 One PKG wash prime 7.38 97.35% N5874 Black WR SG TOPCOT 10.75 51.25% N5874 Black WR SG TOPCOAT 10.75 51.25% N5874 Black WR SG TOPCOAT 10.75 51.25% N5874 Black WR SG TOPCOAT 10.75 51.25% Polane B Polyurethane 10.42 47.60% Polane BF Dolyurethane 10.42 47.60% Polane BT BASE: F63BT/1 10.00 65.00% Polane BT CATALVST: F63BT/1 9.57 40.00% Polane BT CATALVST: F63BT/1 9.57 40.00% Polane BT REDUCER: F63BT/1 7.25 100.00% Polane BT REDUCER: F63BT/1 7.25 100.00% Polane BT T BASE: F63BT/1 7.25 100.00% Polane BT T BASE: F63BT/1 6.76 100.00% Polane BS T BASE: F63BT/1 6.76 100.00% Polane BS T BASE: F63BT/1 8.85 25.00% Polane BS T BASE: F63BT/1 8.85 25.00% Polane BS T BASE: F63BT/1 7.25 100.00% Polane BS T BASE: F63BT/1 7.25 100.00% Polane HS BASE F63BT/1 F63JX 11.60 35.00% Polane HS REDUCER: F63BT/1 8.80 48.60% Polane HS REDUCER: F63BT/1 8.80 48.60% Colonvorks Appliance Epoxy 6.26 62.40% Colonvorks High Temp 6.46 79.40% Colonvorks High Temp 6.46 79.40% Colonvorks Unick Dry Laquer 8.74 36.30% Colonvorks Ouck Dry Laquer 8.74 36.30% Justrie Thinner & Cleaner 7.65 100.00% KT2199 Bake Grey Enamel 10.00 41.70% N-1088D M-1 Blend 7.54 68.60% Polane HS Catalyst: F63J/1 9.32 27.50% Polane PLS 2.8 TPISE* F63J/1 9.32 27.50% Polane HS Catalyst: F63J/1 9.32 27.50% Polane T Poly Inter Color 10.62 47.90% N-1088D M-1 Poly Inter Color 10.62 47.90% Polane T Poly Inter Enamel 11.66 42.20% Polane T Poly Inter Enamel 11.66 42.20% XE-2733 White (TT-E-489) 8.48 40.74% XE-6161 Low Gloss Bik AD. 9.20 48.57% XE-6567 A Ploiner Primer 11.16 54.85%		Density		5	Volume %	Volume %	Gal of Mat	Maximum	Flash-off	Pounds VOC	Pounds VOC	Potential	Potential	Potential	Particulate	Ib VOC	Transfer
N-4281 One PKG wash prime	Water	(lbs/gal)	Water O	ganics	Water	Non-Vol	(gal/unit)	(unit/hour)	(fraction)	per gallon	per gallon	VOC pounds	VOC pounds	VOC tons	Potential	/gal	Efficiency
N-4281 One PKG wash prime 7.38 97.35% NS874 Black W/R SG TOPCOT 10.75 51.25% NS874 Black W/R SG TOPCOAT 10.75 51.25% NS874 Black W/R SG TOPCOAT 10.75 51.25% NS874 Black W/R SG TOPCOAT 10.75 51.25% Polane B POLY INTER M/K: F63B173 10.29 49.40% Polane B POLY INTER M/K: F63B171 10.29 49.40% Polane B/T CATALYST: F63B171 9.57 40.00% Polane B/T CATALYST: F63B711 9.57 40.00% Polane B/T CATALYST: F63B711 8.85 25.00% Polane B/T CATALYST: F63B711 10.80 60.00% Polane B/T REDUCER: F63B171 7.25 100.00% Polane B/T REDUCER: F63B171 7.25 100.00% Polane B/T REDUCER: F63B171 6.76 100.00% Colorworks REDUCER: F63J17 6.76 100.00% ASSOCIATED A COLOR OF A COLOR						(solids)				of coating	of coating	per hour	per day	per year	tons per year	solids	
NS674 Black WIR SG TOPCOT 10.75 51.25%. NS674 Black WIR SG TOPCOAT 10.75 51.25%. Polane B POLY INTER MIX: F63BT/3 10.29 49.40%. Polane B POLY INTER MIX: F63BT/3 10.29 49.40%. Polane BT TB BASE: F63BT/1 10.00 65.00%. Polane BT TB BASE: F63BT/1 9.57 40.00%. Polane BT CATALYST: F63BT/1 9.57 40.00%. Polane BT CATALYST: F63BT/1 7.04 100.00%. Polane BT CATALYST: F63BT/1 7.04 100.00%. Polane BT REDUCER: F63BT/1 7.04 100.00%. Polane BT REDUCER: F63BT/1 7.04 100.00%. Polane BT REDUCER: F63BT/1 7.05 100.00%. Polane BT REDUCER: F63BT/1 7.06 100.00%. Polane HS BASE: F63BT/1 10.80 60.00%. Polane HS REDUCER: F63BT/1 10.80 60.00%. 1 Shot Lettering Enamels 7.43 35.01%. STORE BEOUCER: F63BT/1 9.04 57.60%. Coloworks Appliance Epoxy 6.26 62.40%. Coloworks High Temp 6.46 79.40%. Coloworks High Temp 6.48 79.40%. Coloworks High Temp 6.48 79.40%. Coloworks Metallic Enamel 6.22 88.40%. Coloworks Metallic Enamel 6.22 88.40%. Justrite Thinner & Cleaner 7.65 100.00%. KT1027 Vit Drum ENL White 10.60 42.30%. KT2199 Bake Grey Enamel 10.00 41.70%. N-1088A White Epoxy Primer 11.18 37.95%. N-1088BM 4:1 Blend 7.54 68.60%. Polane HS Catalyst: F63J/1 9.32 27.50%. Polane HS Catalyst: F63J/1 9.34 100.00%. Polane HS Catalyst: F63J/1 9.34 100.00%. Polane HS Catalyst: F63J/1 9.34 100.00%. Polane T Poly Inter Enamel 11.66 42.20%. Polane T Poly Inter Color 10.62 47.90%. Polane T Poly Inter Enamel 11.66 42.20%.										less water							
NS874 Black WR SG TOPCOAT	0.0%	7.38	0.0%	7.4%	0.0%	1.84%	0.00265	30.515	1.00	7.18	7.18	0.58	13.94	2.54	0.03	390.46	50%
Polane B POLY INTER MIX: F63BT/3 10.29 49.40%. Polane B POLY INTER MIX: F63BT/3 10.29 49.40%. Polane B/T B BASE: F63BT/1 10.00 65.00% Polane B/T CATALYST: F63BT/1 9.57 40.00%. Polane B/T CATALYST: F63BT/1 9.57 40.00%. Polane B/T CATALYST: F63BT/1 7.04 100.00%. Polane B/T CATALYST: F63BT/1 7.04 100.00%. Polane B/T TEDUCER: F63BT/1 7.04 100.00%. Polane B/T TEDUCER: F63BT/1 7.04 100.00%. Polane B/T REDUCER: F63BT/1 10.80 60.00%. Polane B/S REDUCER: F63BT/1 10.80 60.00%. Polane B/S REDUCER: F63BT/1 10.80 50.00%. Polane B/S REDUCER: F63BT/1 10.80 35.00%. 1 Shot Lettering Enamels 7.43 35.01%. S730B Black Flat h/D P/S Black B/S Black B/S B/S Black B/S	43.6%	10.75	43.6%	7.6%	56.34%	32.02%	0.00450	30.515	1.00	1.87	0.82	0.11	2.70	0.49	1.58	2.55	50%
Polane B Polyurethane 10.42 47.60%. Polane B/T B BASE: F63BT/1 10.00 65.00%. Polane B/T CATALYST: F63BT/1 9.57 40.00%. Polane B/T CATALYST: F63BT/1 9.57 40.00%. Polane B/T CATALYST: F63BT/1 8.85 25.00%. Polane B/T REDUCER: F63BT/1 7.25 100.00%. Polane B/T REDUCER: F63BT/1 7.25 100.00%. Polane B/T REDUCER: F63BT/1 7.25 100.00%. Polane B/T T BASE: F63BT/1 7.25 100.00%. Polane B/T BASE: F63BT/1 6.76 10.00%. Polane HS REDUCER: F63BT/1 6.76 100.00%. Polane HS REDUCER: F63BT/1 6.76 100.00%. Polane HS REDUCER: F63B/1 6.76 100.00%. Spoars HS REDUCER: F63B/1 9.04 57.60%. Colonworks Appliance Epoxy 6.26 62.40%. Colonworks High Temp 6.46 79.40%. Colonworks High Temp 6.46 79.40%. Colonworks High Temp 6.46 79.40%. Colonworks Metallic Enamel 6.22 88.40%. Colonworks Metallic Enamel 6.22 88.40%. Colonworks Metallic Enamel 6.20 8.74 36.30%. Colonworks Coluck Dry Laquer 8.74 36.30%. Colonworks Gulck Dry Laquer 8.74 36.30%. Colonworks Metallic Enamel 10.00 41.70%. K/11027 W Drum ENL White 10.60 42.30%. K/11027 W Drum ENL White 10.60 42.30%. K/11027 W Drum ENL White 10.60 42.30%. N-10884 White Epoxy Primer 11.18 37.95%. N-1088 White Epoxy Primer 11.18 37.95%. N-1088 White Epoxy Primer 11.18 37.95%. Polane HS Catalyst: F63J/1 9.32 27.50%. Polane HS Catalyst: F63J/1 9.32 27.50%. Polane HS Catalyst: F63J/1 9.32 27.50%. Polane HS Catalyst: F63J/1 9.34 10.00%. Polane Plus/2.8 F63PVE/1 POLANE 11.66 42.20%. Polane T Poly Inter Enamel 11.6	43.6%	10.75	43.6%	7.7%	56.34%	32.02%	0.00136	30.515	1.00	1.88	0.82	0.03	0.82	0.15	0.48	2.57	50%
Polane B/T B BASE: F638T/1 10.00 65.00%. Polane B/T CATALYST: F638T/1 9.57 40.00%. Polane B/T CATALYST: F638T/1 9.57 40.00%. Polane B/T CATALYST: F638T/1 7.04 100.00%. Polane B/T REDUCER: F638T/1 7.04 100.00%. Polane B/T REDUCER: F638T/1 7.04 100.00%. Polane B/T REDUCER: F638T/1 10.80 60.00%. Polane B/T T BASE: F638T/1 11.60 60.00%. Polane B/T BEDUCER: F633T/1 11.60 35.00%. Polane B/T BASE: F638T/1 10.80 60.00%. Polane B/T BASE: F638T/1 10.80 60.00%. Polane B/S BEDUCER: F633T/1 6.76 100.00%. 1 Shot Lettering Enamels 7.43 35.01%. S17038 Black Flat A/T D/Y 8.80 48.60%. B5994 Silver Paint 9.04 57.60%. Colorworks Appliance Epoxy 6.26 62.40%. Colorworks Appliance Epoxy 6.26 62.40%. Colorworks Metaliic Enamel 6.22 88.40%. Colorworks Metaliic Enamel 6.22 88.40%. Colorworks Metaliic Enamel 6.22 88.40%. Colorworks Cluck Dry Laquer 8.74 36.30%. Colorworks Cluck Dry Laquer 8.74 36.30%. Colorworks Cluck Dry Laquer 8.74 36.30%. K11027 Vit Drum ENL White 10.60 42.30%. K11027 Vit Drum ENL White 10.60 42.30%. K72199 Bake Grey Enamel 10.00 41.70%. N-1088A White Epoxy Primer 11.18 37.95%. N-1088B W-11 EBer. F63J/1 9.32 27.50%. Polane HS Catalyst: F63J/1 9.32 27.50%. Polane HS Catalyst: F63J/1 9.32 27.50%. Polane Plus/2.8 F63PVE/1 POLANE 11.40 19.00%. Polane Plus/2.8 F63PVE/1 POLANE 11.40 19.00%. Polane Plus/2.8 F63PVE/1 POLANE 11.66 42.20%. AVE-667A Yellow EP/X Primer 11.16 44.20%. XE-667B Low Gloss Bik A.D. 9.20 48.57%. XE-667B Low Gloss Bik A.D. 9.20 48.57%.	0.0%	10.29	0.0%	9.4%	0.0%	29.10%	0.00095	30.515	1.00	5.08	5.08	0.15	3.54	0.65	0.33	17.47	50%
Polane B/T CATALYST: F63BT/1 9.57 40.00%	0.0%	10.42	0.0%	7.6%	0.0%	30.60%	0.00703	30.515	1.00	4.96	4.96	1.06	25.54	4.66	2.57	16.21	50%
Polane B/T CATALYST: F63B/T/I 8.85 25.00%. Polane B/T REDUCER: F63B/T/I 7.04 100.00%. Polane B/T REDUCER: F63B/T/I 7.25 100.00%. Polane B/T REDUCER: F63B/T/I 10.80 60.00%. Polane B/S RESE: F63B/T/I 10.80 60.00%. Polane B/S BASE: F63B/T/I 10.80 60.00%. Polane B/S BASE: F63B/T/I 10.80 60.00%. Polane HS BASE: F63B/T/I 10.80 60.00%. Polane HS REDUCER: F63B/T 6.76 100.00%. I Shot Lettering Enamels 7.43 35.01%. 37038 Black Flat Air Dry 8.80 48.60%. Colorworks Appliance Epoxy 6.26 62.40%. Colorworks Appliance Epoxy 6.26 62.40%. Colorworks Metallic Enamel 6.22 88.40%. Colorworks Metallic Enamel 6.22 88.40%. Colorworks Metallic Enamel 6.22 88.40%. Colorworks Metallic Enamel 7.65 100.00%. K/T2199 Bake Grey Enamel 7.65 100.00%. K/T2199 Bake Grey Enamel 10.00 41.70%. N-108A White Epoxy Primer 11.18 37.95%. N-108B/BM 4.1 Blend 7.54 86.60%. Polane HS REDUCER: F63J/T 7.86 100.00%. Polane HS Catalyst: F63J/T 9.32 27.50%. Polane PUS Catalyst: F63J/T 9.34 10.00%. Polane PUS Catalyst: F63J/T 9.32 27.50%. Polane PUS Catalyst: F63J/T 9.34 10.00%. Polane PUS Catalyst: F63J/T 9.34 10.00%. Polane T Poly Inter Color 10.62 47.90%. E-6567 Polane T Poly Inter Color 10.62 47.90%. E-6567 Polane T Poly Inter Color 10.62 47.90%. E-6567 Polane T Poly Inter Fearnel 11.66 42.20%. XE-6567 Polane Pilor Finer 11.16 42.20%. Polane T Poly Inter Color 10.62 47.90%. E-6567 Polane T Poly Inter Fearnel 11.66 42.20%. XE-6567 Polane Pilor Fearnel 11.66 42.20%.	0.0%	10.00	0.0%	5.0%	0.0%	30.00%	0.00049	30.515	1.00	6.50	6.50	0.10	2.33	0.43	0.11	21.67	50%
Polane BJT REDUCER: F63BT/1 7.04 100.00% Polane BJT TEDUCER: F63BT/1 7.25 100.00% Polane BJT TEDUCER: F63BT/1 10.80 60.00% Polane BJT SASE: F63BJT/1 10.80 60.00% Polane HS BASE: F63JJT/1F63JJX 11.60 35.00% 1 Shot Lettering Enamels 7.43 35.01% 2 Shot Salver Paint 9.04 57.60% Coloworks Appliance Epoxy 6.26 62.40% Coloworks High Temp 6.46 79.40% Coloworks High Temp 6.46 79.40% Coloworks High Temp 6.22 88.40% Coloworks High Temp 6.22 88.40% Coloworks Gluck Dry Laquer 8.74 36.30% Coloworks Gluck Dry Laquer 8.74 36.30% Coloworks Oluck Dry Laquer 8.74 36.30% Coloworks Quick Dry Laquer 8.74 36.30% KT1027 VR Drum ENL White 10.60 42.30% KT1027 VR Drum ENL White 10.60 42.30% KT2199 Bake Grey Enamel 10.00 41.70% KT2199 Bake Grey Enamel 10.00 41.70% N-1088 Mythite Epoxy Primer 11.18 37.95% N-1088 Mythite Epoxy Primer 11.18 37.95% Polane HS Catalyst: F63J/1 9.32 27.50% Polane HS Catalyst: F63J/1 9.32 27.50% Polane HS Catalyst: F63J/1 9.34 10.00% Polane Plus/2.8 T63PVE/1 POLANE 11.40 19.00% Polane T Poly Inter Color 10.62 47.90% KZ-2733 White (TTE-489) 8.48 40.74% KE-6567 A Vellow EPX Primer 11.16 38.88% KE-6567 A Vellow EPX Primer 11.16 11.16	0.0%	9.57	0.0%	0.0%	0.0%	52.30%	0.00026	30.515	1.00	3.83	3.83	0.03	0.73	0.13	0.10	7.32	50%
Polane B/T REDUCER: F63BT/1 7.25 100.00%	0.0%	8.85	0.0% 2	5.0%	0.0%	69.60%	0.00028	30.515	1.00	2.21	2.21	0.02	0.45	0.08	0.12	3.18	50%
Polane BTT BASE: F63BT/I 10.80 60.00%	0.0%	7.04	0.0% 1	00.0%	0.0%	0.00%	0.00139	30.515	1.00	7.04	7.04	0.30	7.17	1.31	0.00	N/A	50%
Polane HS BASE:F63J/1:F63JX	0.0%	7.25	0.0% 1	00.0%	0.0%	0.00%	0.00135	30.515	1.00	7.25	7.25	0.30	7.17	1.31	0.00	N/A	50%
Polane HS REDUCER:F63J/1 6.76 100.00% 1 Short Lettering Enamels 7.43 35.01% 37038 Black Hait Air Dry 8.80 48.60% B5954 Silver Paint 9.04 57.60% Colorworks Appliance Epoxy 6.26 62.40% Colorworks Appliance Epoxy 6.26 62.40% Colorworks Heigh Temp 6.46 79.40% Colorworks Metallic Enamel 6.22 88.40% Colorworks Guick Dry Laquer 8.74 36.30% Colorworks Quick Dry Laquer 8.74 36.30% K1027 Vit Drum ENL White 10.60 42.30% K72199 Bake Grey Enamel 10.00 41.70% N-1088M 41* Blend 7.54 68.60% N-1088M 41* Blend 7.54 68.60% Polane HS Catalyst: F63J/1 9.32 27.50% Polane HS Catalyst: F63J/1 9.34 10.00% Polane HS Catalyst: F63J/1 9.34 10.00% Polane Plus/2.8 TP Plus F63PVE/2 14.40 19.00% Polane T Poly Inter Cannel 11.66 42.20% Polane T Poly Inter Cannel 11.66 42.20% Polane T Poly Inter Cannel 11.66 42.20% XE-2733 White (TT-E-489) 8.48 46.74% XE-8567A Vellow EPX Primer 11.16 11.66 XE-25733 White (TT-E-489) 8.48 46.74% XE-8567A Vellow EPX Primer 11.16 11.66 42.20% XE-8567A Vellow EPX Primer 11.16 42.20%	0.0%	10.80	0.0%	0.0%	0.0%	37.00%	0.00136	30.515	1.00	6.48	6.48	0.27	6.45	1.18	0.39	17.51	50%
1 Shot Lettering Enamels 7.43 35.01% 8.80 48.60% 8.37038 Black Flat Art Dry 8.80 48.60% BS9S4 Silver Paint 9.04 57.60% Colorworks Appliance Epoxy 6.26 62.40% Colorworks High Temp 6.46 79.40% Colorworks High Temp 6.46 79.40% Colorworks High Temp 6.42 88.40% Colorworks High Temp 6.42 88.40% Colorworks Didak Dry Laquer 8.74 36.30% Colorworks Oluck Dry Laquer 8.74 36.30% Colorworks Oluck Dry Laquer 8.74 36.30% K71027 WIT Drum ENL White 10.60 42.00% K72199 Bake Grey Enamel 10.00 41.70% K72199 Bake Grey Enamel 10.00 41.70% N-1088A White Epoxy Primer 11.18 37.95% N-1088BM 41 Blend 7.54 68.60% N-1088 White Epoxy Primer 11.18 37.95% Polane HS ERDUCER: F63.1/1 7.86 100.00% Polane HS Catalyst: F63.1/1 9.32 27.50% Polane HS Catalyst: F63.1/1 9.32 27.50% Polane PIS.2.8 TPUS F639VE/1 POLANE 11.4.40 19.00% Polane Plus/2.8 F639VE/1 POLANE 11.4.60 19.00% Polane T Poly Inter Color 10.62 47.90% Polane T Poly Inter Color 10.62 47.90% Polane T Poly Inter Color 10.62 47.90% Polane T Poly Inter Enamel 11.66 42.20% Polane T Poly Inter Enamel 11.66 42.20% XE-2733 White (TTE-489) 8.48 40.74% XE-6567 A Vellow EPX Primer 11.16 11.68 88.80% XE-6567 A Vellow EPX Primer 11.16 11.16 83.80%	0.0%	11.60	0.0%	5.0%	0.0%	60.00%	0.00084	30.515	1.00	4.06	4.06	0.10	2.50	0.46	0.42	6.77	50%
37038 Black Flat Air Dry 8.80 48.60% BS954 Shiver Paint 9.04 57 6.0% Colorworks Appliance Epoxy 6.26 62.40% Colorworks Appliance Epoxy 6.26 62.40% Colorworks Medallic Enamel 6.22 88.40% Colorworks Medallic Enamel 6.22 88.40% Colorworks Medallic Enamel 6.22 88.40% Colorworks Guick Dry Laquer 8.74 85.30% Justriet Thinner & Cleaner 7.65 100.00% K11027 Urb Tell Nulley 10.60 42.30% K11027 Urb Tell Nulley 10.60 42.30% K11027 Urb Tell Nulley 10.60 41.70% N-10884 White Epoxy Primer 11.18 37.95% N-10884 White Epoxy Primer 11.18 37.95% Polane HS REDUCER: F63.J/1 7.86 100.00% Polane HS REDUCER: F63.J/1 9.32 27.50% Polane HS Catalyst: F63.J/1 9.34 10.00% Polane Plus/2.8 F63.PVE/1 POLANE 11.4.40 19.00% Polane Plus/2.8 F63.PVE/1 POLANE 11.66 42.20% Polane T Poly Inter Color 10.62 47.90% Polane T Poly Inter Color 10.62 47.90% Polane T Poly Inter Color 10.62 47.90% XE-273.White (TFE-489) 8.48 8.48 46.74% XE-56574 Vellow EPX Primer 11.16	0.0%	6.76	0.0% 1	00.0%	0.0%	0.00%	0.00036	30.515	1.00	6.76	6.76	0.07	1.78	0.33	0.00	N/A	50%
BS9S4 Silver Paint 9.04 57.60%. Colorworks Appliance Epoxy 6.26 62.40%. Colorworks High Temp 6.46 72.40%. Colorworks High Temp 6.46 72.40%. Colorworks High Temp 6.46 72.40%. Colorworks Metallic Enamel 6.22 88.40%. Colorworks Quick Dry Laquer 8.74 36.30%. Colorworks Quick Dry Laquer 8.74 36.30%. Colorworks Quick Dry Laquer 8.74 36.30%. K1727 Vit Drum ENL White 10.60 42.30%. K11027 Vit Drum ENL White 10.60 42.30%. K72199 Bake Grey Enamel 10.00 41.70%. K72199 Bake Grey Enamel 10.00 44.70%. N-1088 MH 18 Bend 75.4 68.60%. N-1088 MH 18 Bend 75.4 68.60%. N-1088 MH 18 Bend 75.4 68.60%. Polane HS Catalyst: F63J/1 9.32 27.50%. Polane HS Catalyst: F63J/1 9.34 10.00%. Polane HS Catalyst: F63J/1 9.34 10.00%. Polane Plus/2.8 TP Plus "F63PVE/2 14.40 19.00%. Polane Plus/2.8 F63PVE/1 POLANE 11.66 42.20%. Polane T Poly Inter Color 10.62 47.90%. Polane T Poly Inter Enamel 11.66 42.20%. Polane T Poly Inter Enamel 11.66 42.20%. XE-2733 White (TTE-489) 8.48 40.74%. XE-8657A Yellow EPX Primer 11.16 11.68 88.89%. XE-8657A Yellow EPX Primer 11.16 11.16	0.0%	7.43	0.0%	5.0%	0.0%	75.00%	0.00263	30.515	1.00	2.60	2.60	0.21	5.01	0.91	0.85	3.47	50%
Colorworks Appliance Epoxy	0.0%	8.80	0.0%	8.6%	0.0%	39.00%	0.00056	30.515	1.00	4.28	4.28	0.07	1.75	0.32	0.17	10.97	50%
Colorworks High Temp 6.46 79.40%. Colorworks Metallic Enamel 6.22 88.40%. Colorworks Metallic Enamel 6.22 88.40%. Colorworks Quick Dry Laquer 8.74 36.30%. Colorworks Quick Dry Laquer 8.74 36.30%. Colorworks Culck Dry Laquer 8.74 36.30%. Colorworks Culck Dry Laquer 8.74 36.30%. K1027 Vit Drum ENL White 10.60 42.30%. K72199 Bake Grey Enamel 10.00 41.70%. N-1088BM 41: Blend 7.54 68.60%. N-1088BM 41: Blend 7.54 68.60%. Polane HS REDUCER: F63J/1 7.86 100.00%. Polane HS Catalyst: F63J/1 9.32 27.50%. Polane HS Catalyst: F63J/1 9.34 10.00%. Polane Plus/2.8 TP Plus "F63PVE/2 14.40 19.00%. Polane Plus/2.8 F63PVE/1 POLANE 14.40 19.00%. Polane T Poly Inter Color 10.62 47.90%. Polane T Poly Inter Cammel 11.66 42.20%. Polane T Poly Inter Cammel 11.66 42.20%. XE-2733 White (TT-E-489) 8.48 46.74%. XE-8657A Vellow EPX Primer 11.16 11.68 88.788%.	0.0%	9.04	0.0%	7.6%	0.0%	25.60%	0.00108	30.515	1.00	5.21	5.21	0.17	4.12	0.75	0.28	20.34	50%
Colorworks Metallic Enamel 6.22 88.40%. Colorworks Quick Dry Laquer 8.74 36.30%. Colorworks Quick Dry Laquer 8.74 36.30%. Colorworks Quick Dry Laquer 8.74 36.30%. Justite Thinner & Cleaner 7.65 100.00%. K171027 VI Drum ENL White 10.60 42.30%. K171027 VI Drum ENL White 10.60 42.30%. K72199 Bake Grey Enamel 10.00 41.70%. K72199 Bake Grey Enamel 10.00 41.70%. N-1088BM 41 Blend 7.54 68.60%. N-1088BM 41 Blend 7.54 68.60%. Polane HS Catalyst: F63J/1 7.86 100.00%. Polane HS Catalyst: F63J/1 9.32 27.50%. Polane PluS 2.8 T Plus' F63PVE/2 H.4.0 19.00%. Polane PluS 2.8 T Plus' F63PVE/2 14.40 19.00%. Polane PluS 2.8 T Plus' F63PVE/2 14.40 19.00%. Polane T Poly Inter Color 10.62 47.90%. Polane T Poly Inter Color 10.62 47.90%. XE-3733 White (TT-E-489) 8.48 40.74%. XE-5657 A Vellow EPX Primer 11.16	0.0%	6.26	0.0%	2.4%	0.0%	37.60%	0.00008	30.515	1.00	3.91	3.91	0.01	0.23	0.04	0.01	10.39	50%
Colonworks Quick Dry Laquer 8.74 36.30% Colonworks Quick Dry Laquer 8.74 36.30% Justrier Thinner & Cleaner 7.65 100.00% K11027 Vit Drum ENL White 10.60 42.30% K72199 Bake Grey Enamel 10.00 41.70% N-1088BA White Epoxy Primer 11.18 37.95% N-1088BM 4-11 Blend 7.54 68.60% Polane HS REDUCER: F63J/1 7.86 100.00% Polane HS Catalyst: F63J/1 9.32 27.50% Polane HS Catalyst: F63J/1 9.32 27.50% Polane Plus/2.8 "F3PVE/1 POLANE 14.40 19.00% Polane Plus/2.8 "F3PVE/1 POLANE 14.40 19.00% Polane T Poly Inter Color 10.62 47.90% Polane T Poly Inter Cannel 11.66 42.20% KE-2733 White (TT-E-489) 8.48 46.74% XE-8161 Low Gloss Blk AD. 9.20 48.57% XE-6567A Vellow EPX Primer 11.16 78.88%	0.0%	6.46	0.0%	9.4%	0.0%	20.60%	0.00227	30.515	1.00	5.13	5.13	0.36	8.53	1.56	0.20	24.90	50%
Coloworks Quick Dry Laquer 8.74 36.30%	0.0%	6.22	0.0%	8.4%	0.0%	11.60%	0.00079	30.515	1.00	5.50	5.50	0.13	3.18	0.58	0.04	47.40	50%
Justrite Thinner & Cleaner 7.65 100.00% K11027 Vit Drum ENL White 10.60 42.30% K711027 Vit Drum ENL White 10.60 42.30% K72199 Bake Grey Enamel 10.00 41.70% N-1088A White Epoxy Primer 11.18 37.95% N-1088BM 41 Blend 7.54 68.60% Polane HS REDUCER: F63J/1 7.86 100.00% Polane HS Catalyst: F63J/1 9.32 27.50% Polane HS Catalyst: F63J/1 9.32 27.50% Polane Plus/2.8 TP Ilus* F63J/1 9.34 10.00% Polane Plus/2.8 TP Ilus* F63J/1 14.40 19.00% Polane Plus/2.8 TP Ilus* F63J/1 11.66 42.00% Polane TP Poly Inter Color 10.62 47.90% Polane TP Poly Inter Color 10.62 47.90% XE-2733 White (TT-E-489) 8.48 46.74% XE-6161 Low Gloss Bilk AD. 9.20 48.57% XE-6561 Low Gloss Bilk AD. 9.20 48.57%	0.0%	8.74	0.0%	6.3%	0.0%	50.30%	0.00056	30.515	1.00	3.17	3.17	0.05	1.30	0.24	0.21	6.31	50%
K11027 Vit Drum ENL White 10.60 42.30%	0.0%	8.74	0.0%	6.3%	0.0%	50.30%	0.00056	30.515	1.00	3.17	3.17	0.05	1.30	0.24	0.21	6.31	50%
K72199 Bake Grey Enamel 10.00 41.70% N-1086A White Epoxy Primer 11.18 37.95% N-1086BM 41: Blend 7.54 68.60% Polane HS REDUCER: F63J/1 7.86 100.00% Polane HS Catalyst: F63J/1 9.32 27.50% Polane HS Catalyst: F63J/1 9.34 10.00% Polane Plus/2 A: TP Ilus' F63J/1 9.34 10.00% Polane Plus/2 A: F63JYE/1 Pol.ANE 14.40 19.00% Polane Plus/2 B: F63JYE/1 POLANE 14.40 19.00% Polane T Poly Inter Color 11.66 42.20% Polane T Poly Inter Color 10.62 47.90% Polane T Poly Inter Enamel 11.66 42.20% XE-273 White (TT-E-489) 8.48 46.74% XE-6161 Low Gloss Blk A.D. 9.20 48.57% XE-6567 A Yellow EPX Primer 11.16 37.88%	0.0%	7.65	0.0% 1	00.0%	0.0%	0.00%	0.00030	30.515	1.00	7.65	7.65	0.07	1.68	0.31	0.00	N/A	50%
N-1088A White Epoxy Primer 11.18 37.95% N-1088BM 4:1 Blend 7.54 68.60% Polane HS REDUCER: F63J/1 7.86 100.00% Polane HS Catalyst: F63J/1 9.32 27.50% Polane HS Catalyst: F63J/1 9.32 27.50% Polane PS Catalyst: F63J/1 9.34 10.00% Polane Plus/2.8 "T Plus" F63J/1 9.34 10.00% Polane Plus/2.8 "T Plus" F63J/1 14.40 19.00% Polane Plus/2.8 "63J/PE/1 POLANE 14.40 19.00% Polane T Poly Inter Color 10.62 47.90% Polane T Poly Inter Color 10.62 47.90% XE-2733 White (TT-E-489) 8.48 46.74% XE-6161 Low Gloss Bik AD. 9.20 48.57% XE-6567 A Yellow EPX Primer 11.16 9.288%	0.0%	10.60	0.0%	2.3%	0.0%	57.74%	0.00092	30.515	1.00	4.48	4.48	0.13	3.02	0.55	0.38	7.77	50%
N-1088BM 41 Blend 7.54 68.60% Polane HS REDUCER: F63.J/1 7.86 100.00% Polane HS Catalyst: F63.J/1 9.32 27.50% Polane HS Catalyst: F63.J/1 9.34 100.00% Polane HS Catalyst: F63.J/1 9.34 100.00% Polane Plus/2.8 T Plus': F639FU/2 I 4.40 19.00% Polane Plus/2.8 F639FU/2 I POLANE 14.40 19.00% Polane T Poly Inter Color 11.66 42.20% Polane T Poly Inter Color 10.62 47.90% XE-2733 White (TT-E-48) 8.48 40.74% XE-6161 Low Gloss Bik A.D. 9.20 48.57% XE-6567 A Yellow EPX Primer 11.16 9.288%	0.0%	10.00	0.0%	1.7%	0.0%	58.30%	0.00488	30.515	1.00	4.17	4.17	0.62	14.90	2.72	1.90	7.15	50%
Polane HS REDUCER: F63.J/1 7.86 100.00%	0.0%			8.0%	0.0%	40.60%	0.00131	30.515	1.00	4.24	4.24	0.17	4.07	0.74	0.61	10.45	50%
Polane HS Cattalyst: F63J/1 9.32 27.50%,	0.0%			8.6%	0.0%	25.28%	0.00194	30.515	1.00	5.17	5.17	0.31	7.35	1.34	0.31	20.46	50%
Polane HS Catalyst: F63J/1 9.34 10.00%	0.0%	7.86	0.0% 1	00.0%	0.0%	0.00%	0.00031	30.515	1.00	7.86	7.86	0.07	1.78	0.33	0.00	N/A	50%
Polane Plus/2.8 "T Plus" F63PVE/2 14.40 19.00% Polane Plus/2.8 F63PVE/1 POLANE 14.40 19.00% Polane T Poly Enamel 11.66 42.20% Polane T Poly Inter Color 10.62 47.90% Polane T Poly Inter Color 11.66 42.20% Polane T Poly Inter Enamel 11.66 42.20% XE-2733 White (TT-E-489) 8.48 46.74% XE-6161 Low Gloss Blk A.D. 9.20 48.57% XE-6567 A Yellow EPX Primer 11.16 37.88%	0.0%	9.32	0.0%	7.5%	0.0%	62.10%	0.00131	30.515	1.00	2.56	2.56	0.10	2.46	0.45	0.59	4.13	50%
Polane Plus/2.8 F63PVE/1 POLANE 14.40 19.00% Polane T Poly Fonamel 11.66 42.20% Polane T Poly Inter Color 10.62 47.90% Polane T Poly Inter Enamel 11.66 42.20% XE-2733 White (TT-E-489) 8.48 46.74% XE-6161 Low Gloss Bik AD. 9.20 48.57% XE-6567A Yellow EPX Primer 11.16 37.88%	0.0%	9.34	0.0%	0.0%	0.0%	87.20%	0.00026	30.515	1.00	0.93	0.93	0.01	0.18	0.03	0.15	1.07	50%
Polane T Poly Enamel 11.66 42.20% Polane T Poly Inter Color 10.62 47.90% Polane T Poly Inter Enamel 11.66 42.20% XE-2733 White (TT-E-489) 8.48 46.74% XE-6161 Low Gloss Bik A.D. 9.20 48.57% XE-6567A Vellow EPX Primer 11.16 37.88%	0.0%	14.40	0.0%	9.0%	0.0%	64.00%	0.00712	30.515	1.00	2.74	2.74	0.59	14.27	2.60	5.55	4.28	50%
Polane T Poly Inter Color 10.62 47.90% Polane T Poly Inter Enamel 11.66 42.20% XE-2733 White (TT-E-489) 8.48 46.74% XE-6161 Low Gloss Bik A.D. 9.20 48.57% XE-85674 Vellow EPX Primer 11.16 37.88%	0.0%			9.0%	0.0%	64.00%	0.01018	30.515	1.00	2.74	2.74	0.85	20.40	3.72	7.94	4.28	50%
Polane T Poly Inter Enamel 11.66 42.20% XE-2733 White (TT-E-489) 8.48 46.74% XE-6161 Low Gloss Blk A.D. 9.20 48.57% XE-6567A Yellow EPX Primer 11.16 37.88%	0.0%			2.2%	0.0%	57.80%	0.00126	30.515	1.00	4.92	4.92	0.19	4.54	0.83	0.57	8.51	50%
XE-2733 White (TT-E-489) 8.48 46.74% XE-6161 Low Gloss Blk A.D. 9.20 48.57% XE-6567A Yellow EPX Primer 11.16 37.88%	0.0%		0.0%	7.9%	0.0%	31.30%	0.00230	30.515	1.00	5.09	5.09	0.36	8.57	1.56	0.85	16.25	50%
XE-6161 Low Gloss Blk A.D. 9.20 48.57% XE-6567A Yellow EPX Primer 11.16 37.88%	0.0%			2.2%	0.0%	57.80%	0.00084	30.515	1.00	4.92	4.92	0.13	3.03	0.55	0.38	8.51	50%
XE-6567A Yellow EPX Primer 11.16 37.88%	0.0%		0.070	6.7%	0.0%	38.24%	0.00012	30.515	1.00	3.96	3.96	0.01	0.35	0.06	0.04	10.36	50%
	0.0%			8.6%	0.0%	36.83%	0.00106	30.515	1.00	4.47	4.47	0.14	3.47	0.63	0.34	12.13	50%
	0.0%			7.9%	0.0%	39.59%	0.00044	30.515	1.00	4.23	4.23	0.06	1.36	0.25	0.20	10.68	50%
	0.0%	7.25		6.5%	0.0%	12.19%	0.00060	30.515	1.00	6.27	6.27	0.11	2.76	0.50	0.04	51.45	50%
XE-7156 Zinc Dichromate 10.23 41.17%	0.0%			1.2%	0.0%	39.82%	0.00010	30.515	1.00	4.21	4.21	0.01	0.31	0.06	0.04	10.58	50%
XE-7751A 383 CARC T2 11.56 37.12%	0.0%	11.56	0.0%	7.1%	0.0%	42.09%	0.00042	30.515	1.00	4.29	4.29	0.05	1.32	0.24	0.20	10.19	50%

State Potential Emissions Add worst case coating to all solvents 8.18 196 35.8 28.2

Control Technology Emissions (Combustion)																
						Emission Facto	'S						Emissions			
Type	Number	Capacity	Gas usage	PM	PM10	SO2	NOx	VOC	8		PM	PM10	SO2	NOx	VOC	8
		MMBtu/hr	MMCF/yr	lb/MMCF	lb/MMCF	Ib/MMCF	lb/MMCF	lb/MMCF	lb/MMCF		tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr
Catalytic			0.0	3.0	3.0	0.6	100.0	5.3	35.0		0.0	0.0	0.0	0.0	0.0	0.0
Thermal			0.0	3.0	3.0	0.6	140.0	2.8	20.0		0.0	0.0	0.0	0.0	0.0	0.0
Total			0.0								0.0	0.0	0.0	0.0	0.0	0.0
										Control Efficiency		Controlled	Controlled	Controlled	Controlled	
										VOC	PM	VOC pounds	VOC pounds	VOC	Particulate	
_										0	0.95	per hour	per day	tons/yr	tons/yr	

8.18

196

35.8

1.41

Controlled Emissions due to Surface Coating Operations and Controls

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating (Editor) (Edito

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * Flash-off

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day) * Flash-off

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs) * Flash-off Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hr/s/yr) *(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids) * Flash-off

Total = Worst Coating + Sum of all solvents used

HAP Emission Calculations From Surface Coating Operations

Company Name: Remote Controls, Inc.
Address City IN Zip: 512 S. Merrifield Avenue Mishawaka, IN 46544
FESOP: F141-7924
Plt ID: 141-00167
Reviewer: CarrieAnn Ortolani Date: December 18, 1996

Material	Density	Gal of Mat	Maximum	Weight %	Weight %	Weight %	Weight %	Weight %	Weight %	Weight %	Weight %	Xylene	Toluene	Formaldehyde	Ethylbenzene	Toluene	Glycol Ethers	Hexamethylene	Cumene
	(lb/gal)	(gal/unit)	(unit/hour)	Xylene	Toluene	Formaldehyde	Ethyl-	Toluene	Glycol Ethers	Hexam-	Cumene	Emissions	Emissions	Emissions	Emissions	Diisocyanate	Emissions	Diisocyanate	(tons/yr)
							benzene	Diisocyanate		ethylene		(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	Emissions	(tons/yr)	(tons/yr)	ĺ
										Diisocyanate						(tons/yr)			1
N-4281 One PKG wash prime	7.38	0.00265	30.52	35.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.915	0.000	0.000	0.000	0.000	0.000	0.000	0.0000
N5874 Black W/R SG TOPCOT	10.75	0.00450	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	7.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.453	0.000	0.0000
N5874 Black WR SG TOPCOAT	10.75	0.00136	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	7.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.137	0.000	0.0000
Polane B POLY INTER MIX: F63BT/3	10.29	0.00095	30.52	3.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.039	0.065	0.000	0.000	0.000	0.000	0.000	0.0000
Polane B Polyurethane	10.42	0.00703	30.52	0.00%	4.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.392	0.000	0.000	0.000	0.000	0.000	0.0000
Polane B/T B BASE: F63BT/1	10.00	0.00049	30.52	4.00%	8.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.026	0.052	0.000	0.000	0.000	0.000	0.000	0.0000
Polane B/T CATALYST: F63BT/1	9.57	0.00026	30.52	0.00%	0.00%	0.00%	0.00%	0.30%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.0000
Polane B/T CATALYST: F63BT/1	8.85	0.00028	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000
Polane B/T REDUCER: F63BT/1	7.04	0.00139	30.52	52.00%	15.00%	0.00%	9.00%	0.00%	0.00%	0.00%	0.00%	0.680	0.196	0.000	0.118	0.000	0.000	0.000	0.0000
Polane B/T REDUCER: F63BT/1	7.25	0.00135	30.52	0.00%	20.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.262	0.000	0.000	0.000	0.000	0.000	0.0000
Polane B/T T BASE: F63BT/1	10.80	0.00136	30.52	4.00%	8.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.079	0.157	0.000	0.000	0.000	0.000	0.000	0.0000
Polane HS BASE:F63J/1;F63JX	11.60	0.00084	30.52	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.065	0.000	0.000	0.000	0.000	0.000	0.0000
Polane HS REDUCER:F63J/1	6.76	0.00036	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000
1 Shot Lettering Enamels	7.43	0.00263	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000
37038 Black Flat Air Dry	8.80	0.00056	30.52	35.00%	15.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.231	0.099	0.000	0.000	0.000	0.000	0.000	0.0000
B59S4 Silver Paint	9.04	0.00108	30.52	14.00%	0.00%	0.00%	3.00%	0.00%	0.00%	0.00%	1.00%	0.183	0.000	0.000	0.039	0.000	0.000	0.000	0.0002
Colorworks Appliance Epoxy	6.26	0.00008	30.52	16.00%	8.00%	0.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.011	0.005	0.000	0.002	0.000	0.000	0.000	0.0000
Colorworks High Temp	6.46	0.00227	30.52	7.00%	26.00%	0.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.137	0.510	0.000	0.020	0.000	0.000	0.000	0.0000
Colorworks Metallic Enamel	6.22	0.00079	30.52	0.00%	58.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.381	0.000	0.000	0.000	0.000	0.000	0.0000
Colorworks Quick Dry Laquer	8.74	0.00056	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000
Colorworks Quick Dry Laquer	8.74	0.00056	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000
Justrite Thinner & Cleaner	7.65	0.00030	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.307	0.000	0.0000
K11027 Vit Drum ENL White	10.60	0.00092	30.52	25.00%	0.00%	1.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.326	0.000	0.013	0.065	0.000	0.000	0.000	0.0000
K72199 Bake Grey Enamel	10.00	0.00488	30.52	20.00%	5.00%	1.00%	5.00%	0.00%	0.00%	0.00%	0.00%	1.304	0.326	0.065	0.326	0.000	0.000	0.000	0.0000
N-1088A White Epoxy Primer	11.18	0.00131	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000
N-1088BM 4:1 Blend	7.54	0.00194	30.52	11.00%	0.00%	0.00%	0.00%	0.00%	11.00%	0.00%	0.00%	0.215	0.000	0.000	0.000	0.000	0.215	0.000	0.0000
Polane HS REDUCER: F63J/1	7.86	0.00031	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000
Polane HS Catalyst: F63J/1	9.32	0.00131	30.52	0.00%	0.00%	0.00%	0.00%	0.80%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.013	0.000	0.000	0.0000
Polane HS Catalyst: F63J/1	9.34	0.00026	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.30%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.0000
Polane Plus/2.8 "T Plus" F63PVE/2	14.40	0.00712	30.52	2.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.274	0.000	0.000	0.000	0.000	0.000	0.000	0.0000
Polane Plus/2.8 F63PVE/1 POLANE	14.40	0.01018	30.52	2.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.392	0.000	0.000	0.000	0.000	0.000	0.000	0.0000
Polane T Poly Enamel	11.66	0.00126	30.52	3.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.059	0.098	0.000	0.000	0.000	0.000	0.000	0.0000
Polane T Poly Inter Color	10.62	0.00230	30.52	2.00%	6.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.065	0.196	0.000	0.000	0.000	0.000	0.000	0.0000
Polane T Poly Inter Enamel	11.66	0.00084	30.52	3.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.039	0.065	0.000	0.000	0.000	0.000	0.000	0.0000
XE-2733 White (TT-E-489)	8.48	0.00012	30.52	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.0000
XE-6161 Low Gloss Blk A.D.	9.20	0.00106	30.52	19.00%	21.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.248	0.274	0.000	0.000	0.000	0.000	0.000	0.0000
XE-6567A Yellow EPX Primer	11.16	0.00044	30.52	7.00%	16.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.046	0.105	0.000	0.000	0.000	0.000	0.000	0.0000
XE-6567BM Comp B	7.25	0.00060	30.52	5.00%	63.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.029	0.366	0.000	0.000	0.000	0.000	0.000	0.0000
XE-7156 Zinc Dichromate	10.23	0.00010	30.52	20.00%	20.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.027	0.027	0.000	0.000	0.000	0.000	0.000	0.0000
XE-7751A 383 CARC T2	11.56	0.00042	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
				2.2070	2.2070	2.2070	2.2070	2.3070	TOTALS:	(tons/yr):	2.3070	5.33	3.64	0.078	0.570	0.014	1.11	0.001	0.0002
IAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Mate	erial (gal/unit) *	Maximum (unit	/hr) * Weight % F	IAP * 8760 hrs/y	r * 1 ton/2000 lbs	3			(lbs/hr):		1.22	0.832	0.018	0.130	0.003	0.254	0.0002	0.00005
,,	,	/		, ,						(q/sec):		0.153	0.105	0.002	0.016	0.0004	0.032	0.00003	0.00001

HAP Emission Calculations From Surface Coating Operations

Company Name: Remote Controls, Inc.
Address City IN Zip: 512 S. Merrifield Avenue Mishawaka, IN 46544
FESOP: F141-7924
Plt ID: 141-00167
Reviewer: CarrieAnn Ortolani Date: December 18, 1996

Material	Density	Gal of Mat	Maximum	Weight %	Weight %	Weight %	Weight %	Weight %	Weight %	Weight %	Chromium	Lead	Maganese	MIBK	MEK	Cobalt	Triethylamine
	(lb/gal)	(gal/unit)	(unit/hour)	Chromium	Lead	Maganese	MIBK	MEK	Cobalt	Triethylamine	Compounds	Emissions	Compounds	Emissions	Emissions	Compounds	Emissions
				Compounds		Compoounds			Compunds		Emissions	(tons/yr)	Emissions	(tons/yr)	(tons/yr)	Emissions	(tons/yr)
N-4281 One PKG wash prime	7.38	0.00265	30.52	0.00%	0.00%	0.00%	15.00%	0.00%	0.00%	0.00%	(tons/yr) 0.000	0.000	(tons/yr) 0.000	0.000	0.000	(tons/yr) 0.000	0.000
N5874 Black W/R SG TOPCOT	10.75	0.00265	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
N5874 Black WR SG TOPCOAT	10.75	0.00136	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.020	0.000
Polane B POLY INTER MIX: F63BT/3	10.29	0.00095	30.52	29.00%	29.00%	0.00%	0.00%	15.00%	0.00%	0.00%	0.379	0.379	0.000	0.000	0.196	0.000	0.000
Polane B Polyurethane	10.42	0.00703	30.52	0.00%	0.00%	0.00%	0.00%	19.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	1.860	0.000	0.000
Polane B/T B BASE: F63BT/1	10.00	0.00049	30.52	0.00%	0.00%	0.00%	0.00%	24.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.157	0.000	0.000
Polane B/T CATALYST: F63BT/1	9.57	0.00026	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Polane B/T CATALYST: F63BT/1	8.85	0.00028	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Polane B/T REDUCER: F63BT/1	7.04	0.00139	30.52	0.00%	0.00%	0.00%	24.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.314	0.000	0.000	0.000
Polane B/T REDUCER: F63BT/1	7.25	0.00135	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Polane B/T T BASE: F63BT/1	10.80	0.00136	30.52	0.00%	0.00%	0.00%	0.00%	23.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.452	0.000	0.000
Polane HS BASE:F63J/1;F63JX	11.60	0.00084	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000		
Polane HS REDUCER:F63J/1 1 Shot Lettering Enamels	6.76 7.43	0.00036	30.52 30.52	0.00%	0.00%	0.00% 5.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000 0.784	0.000	0.000	0.000	0.000	0.000
37038 Black Flat Air Dry	8.80	0.00263	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.784	0.000	0.000	0.000	0.000	0.000
B59S4 Silver Paint	9.04	0.00108	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Colorworks Appliance Epoxy	6.26	0.00008	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Colorworks High Temp	6.46	0.00227	30.52	0.00%	0.00%	0.00%	16.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.314	0.000	0.000	0.000
Colorworks Metallic Enamel	6.22	0.00079	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Colorworks Quick Dry Laquer	8.74	0.00056	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Colorworks Quick Dry Laquer	8.74	0.00056	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Justrite Thinner & Cleaner	7.65	0.00030	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
K11027 Vit Drum ENL White	10.60	0.00092	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
K72199 Bake Grey Enamel	10.00	0.00488	30.52	0.00%	0.00%	0.00%	2.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.130	0.000	0.000	0.000
N-1088A White Epoxy Primer	11.18 7.54	0.00131	30.52 30.52	0.00%	0.00%	0.00%	2.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.039	0.000	0.000	0.000
N-1088BM 4:1 Blend Polane HS REDUCER: F63J/1	7.54	0.00194	30.52	0.00%	0.00%	0.00%	28.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.547	0.000	0.000	0.000
Polane HS Catalyst: F63J/1	9.32	0.00031	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Polane HS Catalyst: F63J/1	9.34	0.00026	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Polane Plus/2.8 "T Plus" F63PVE/2	14.40	0.00712	30.52	0.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.685	0.000	0.000	0.000
Polane Plus/2.8 F63PVE/1 POLANE	14.40	0.01018	30.52	0.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.980	0.000	0.000	0.000
Polane T Poly Enamel	11.66	0.00126	30.52	0.00%	0.00%	0.00%	0.00%	4.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.079	0.000	0.000
Polane T Poly Inter Color	10.62	0.00230	30.52	25.00%	25.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.816	0.816	0.000	0.000	0.000	0.000	0.000
Polane T Poly Inter Enamel	11.66	0.00084	30.52	0.00%	0.00%	0.00%	0.00%	4.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.052	0.000	0.000
XE-2733 White (TT-E-489)	8.48	0.00012	30.52	0.00%	1.00%	0.00%	0.00%	0.00%	1.00%	1.00%	0.000	0.001	0.000	0.000	0.000	0.001	0.001
XE-6161 Low Gloss Blk A.D.	9.20	0.00106	30.52	0.00%	0.00%	1.00%	0.00%	0.00%	1.00%	0.00%	0.000	0.000	0.013	0.000	0.000	0.013	0.000
XE-6567A Yellow EPX Primer	11.16	0.00044	30.52	15.00%	0.00%	0.00%	14.00%	0.00%	0.00%	0.00%	0.098	0.000	0.000	0.092	0.000	0.000	0.000
XE-6567BM Comp B	7.25	0.00060	30.52	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	0.000	0.000	0.000
XE-7156 Zinc Dichromate XE-7751A 383 CARC T2	10.23	0.00010	30.52 30.52	0.00%	0.00%	0.00%	0.00% 3.00%	0.00% 5.00%	1.00%	1.00%	0.000	0.000	0.000	0.000	0.000	0.001	0.001
AE-7/3 IA 363 CARC 12	11.06	0.00042	30.52	0.00%	0.00%	0.00%	3.00%	5.00%	TOTALS:	(tons/yr):	1.29	1.98	0.000	3.12	0.032 2.83	0.000	0.000
HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Mate	erial (nal/unit) *	Maximum (unit	/hr) * Weight % H	IAP * 8760 brs/v	r * 1 ton/2000 lbs			TOTALS.	(lbs/hr):	0.295	0.452	0.033	0.712	0.646	0.100	0.003
	, Jai oi Matt	man (gairanit)		, woigit /611	0100 IIIS/y	1011/2000 103	•			(g/sec):	0.293	0.452	0.004	0.090	0.040	0.023	0.001

Appendix A: Emission Calculations Vapor Degreaser & Baghouse Operations

Company Name: Remote Controls, Inc.

Address City IN Zip: 512 S. Merrifield Avenue Mishawaka, IN 46544

FESOP: F 141-7924 Plt ID: 141-00167

Reviewer: CarrieAnn Ortolani Date: December 18, 1996

Vapor Blast

Unit ID	Control	Grain Loading per Actual	Gas or Air	PM Emission Rate	PM Emission Rate	PM Emission Rate	PM Emission Rate
	Efficiency	Cubic foot of Outlet Air	Flow Rate	before Controls	before Controls	after Controls	after Controls
	(%)	(grains/cub. ft.)	(acfm.)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)
LMF	95.0%	0.005	1725.0	1.48	6.48	0.074	0.324

Methodology

Emission Rate in lbs/hr (after controls) = (grains/cub. ft.) (sq. ft.) ((cub. ft./min.)/sq. ft.) (60 min/hr) (lb/7000 grains) Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Emission Rate in lbs/hr (before controls) = Emission Rate (after controls): (lbs/hr)/(1-control efficiency) Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Allowable Rate of Emissions

Process	Process	PM Allowable
Rate	Weight Rate	Emissions
(lbs/hr)	(tons/hr)	(lbs/hr)
100	0.05	0.551

Methodology

Allowable Emissions = 4.10(Process Weight Rate)^0.67 For less than 100 lbs/hr, use 100 lbs/hr for the process weight rate

Vapor Degreaser

					Limited Emissions
	Usage	Density	PTE Trichlor	oethylene (TCE)	Trichloroethylene (TCE)
Solvent	gals/day	(lbs/gal)	(lbs/day)	(tons/yr)	(tons/yr)
Trichloroethylene	9.00	12.184	110	20.0	less than 10

Trichloroethylene is a VOC and a HAP.

Calculation is based on potential usage rate from Form GSD-08 (4.571 lbs/hr, which is equivalent to 9.00 gals/day, potential).